THE CULTIVATOR.

THIRD] TO IMPROVE THE SOIL AND THE MIND. [SERIES.

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Editorial Notes Abroad.

No. XXVIII---More about Farming in Suffolk.

A Heavy Shower—Suffolk Horses—Folding Sheep—Embankment against the Wind—A Suffolk Plow—Donkeys—Tile Works—Pipe for Draining—Collars—Tile for Roofing—The Chillesford Farm—Blading a Wheat Field—Marsh Embankments—Suffolk Swine—Progress of Agriculture and Wages paid to Laborers.

The American climate is spoken of by English people with some horror of our sudden variations. I remember having met with a gentleman who had travelled in the United States, and who, on his return, narrated as one of the singular experiences of the journey, that a storm had occurred one night in hot weather, producing such a sudden change that his host for the time being, got up and came to his room, to supply him with an extra coverlet. If there was no extreme descent of the mercury to render this hospitable attention necessary while I was at Mr. CRISP'S, it was not for the lack of a tolerably violent visitation one night from the thunder and rain. Though the sun was shining brightly enough as we breakfasted next morning, the paths and borders bore witness to as fine a washing as they would have been likely to receive on the banks of the Hudson; and during the sultry weather of the following week or two, I thought more than once most wishfully, how occasionally in such a time at home, a squall and fluster will abruptly warn us of anything but an unwelcome change, the big drops at length relieving a swelling sky, and beating thicker and faster as the falling procession hurries forward, apparently startling Nature herself, very much as a nervous man might suffer in getting an extra dose at his first shower bath. Truth to tell, I did not remain awake long enough to know how far this English shower would have realized such a picture, and all the rains I actually saw were of that gentle kind to remind one rather of a heavy mist that had borrowed the garments of a storm. I should be candid, however, and add that the summer was a dry one, and that neither fog nor mist nor rain anywhere befell, to impede my movements or lessen the pleasure of my visits.

The fact has already been mentioned that Mr. Crisp is an extensive breeder of the Suffolk farm or cart horse. He keeps about 30 brood mares, and has nearly an equal number in addition, including colts and stallions. A very good idea of the Suffolks may be obtained from the portrait given in another column (see p. 60,) of "Chester Emperor," accompanied by a brief description and some remarks as to their character. I was told that the market price for horses of this breed for working purposes in Ipswich, varied with quality, from $150 to $300, while that of stallions and brood mares runs from $500 to $1,500, according to the circumstances of the case.

Of sheep, Mr. Crisp's South-Down breeding-flock numbered between eight and nine hundred. As to the system of *folding*, to which reference has been made, I should perhaps mention some further details. In our walk we passed through a field, just then receiving a dressing of manure in this way. Like the one I spoke of in my last, it had grown wheat in 1858, but there the succeeding crop

Vignette representing a Suffolk Plow.

was mangolds, while here they were just making preparations for sowing turnips, of which the general seed-time of the region is from the 5th to 10th July, or thereabouts. On the former, there had been a "stolen" turnip crop, and here a corresponding one of trefoil was obtained as follows:—The seed was drilled upon the wheat stubble after a harrowing, no plowing being necessary, and the field fed off by the sheep some time in autumn, and as

late as Christmas, and again in spring until perhaps the 10th or 15th of May. Early in June the land was plowed and scarified, and then began the folding, 1,600 sheep being confined by hurdles in a space just large enough to accommodate them without too much crowding, and the hurdles being shifted from day to day until the whole surface should be thus treated. I find my notes deficient in not giving the size of the enclosure required for this number of sheep, but it appeared smaller than I was prepared to anticipate; nor am I quite certain whether any feed was given them to be eaten during the night—where the latter is the case, it is my impression that about two square yards of space are allowed per head. Stephens says that "the dressing thus given by 300 sheep is sufficient in a week for one acre of land, and is worth £3," ($15.) During the day, as already intimated, the sheep are at large upon the unenclosed gorse-lands.

Along the side of the field in question, there ran an embankment of considerable breadth and height, together with the natural accompaniment of a ditch to promote the drainage of the soil. But the purpose of the embankment was to break the force of the wind over the surface of the ground, for the soil is so light as to suffer much from this cause unless some such precaution were taken. Arthur Young states that these drifting sands formed an extensive part of Norfolk, as well as bordering the Suffolk coast, before the introduction of turnip culture, and if I am not mistaken, the embankments here are of quite early erection.

A favorite plow in use in this neighborhood, has its beam erected at one end, even more than the handles are at the other, so that the two form very nearly a right angle. The accompanying vignette taken from the cover of Ransomes & Sims' Catalogue, will serve to give an idea of its appearance, although there represented in rather neater style than those one meets with at work. The draught is by a chain which will be seen attached to the beam just forward of the coulter, and in its shortness the affair reminds one more of our implements, while it is in striking contrast with the long, lithe, low-lying furrow-makers which one finds further on in the same pamphlet this picture is taken from, and which I found occupying all the sheds at the English show-yards. It much resembles what Loudon calls the Norfolk wheel-plow, to which, although "clumsy in appearance from the great bulk of its wheels and their carriage," he accords the credit of doing "its work with neatness in light friable soils," and of requiring "only a small power of draught."

After a tour among the stock with a farmer from another county, whose dialect was quite marked—his pronunciation of the word "bull," for example, being precisely in rhyme with the adjective "dull," but who was evidently a man of solidity and consequence where he lived—we set out for a drive of several hours, meeting, just as we were on the start, I remember, an errand-sent farm boy, bestriding one of those rare animals with us, which are in England and Scotland, as well as upon the Continent, so common and so serviceable for odd jobs on the farm, and for villagers who cannot reach so high in the scale of animal labor as the horse—I refer of course to that long-eared emblem of persistency and wisdom popularly known as the 'donkey.' A capital ass, it is stated, can be bought from $3.75 to $5, "in the prime of his age," while a horse of much value costs at least twenty times as much; "so long as there is a hedge-row overgrown with briers and thistles, so long as there is waste land furnishing a few tufts of rank and bitter grass rejected of other cattle, so long will the ass stick to his work, thrive, and cost you nothing."* Treated almost uniformly with more or less cruelty and ingratitude, it is capable of carrying proportionately a heavier burden than the horse. Mules, which especially at the south are common enough with us, do not seem often bred in England, and all the asses I saw were stunted little things in comparison with some of the fine jacks our breeders have imported for mule-raising, so that I do not think much attention is paid either to their production or improvement.

My host, among his other operations, manufactures tiles for his own use and that of other farmers in the vicinity. In calling at the works, not just then in operation, I found the kind of which most were made, to be pipe tile of 1½ inch calibre, sold for from $3 to $3.75 per 1,000, though latterly as a general thing, at the lower figure—a price too small I think he said, to admit of any profit to the maker. These pipe appeared to be in more general use than tile of any other shape, so far as my observation went, but Mr. C. also made horse-shoe tile, for which his price was $6.25 per 1,000 for the size two inches in the clear, and they are generally laid, he told me, upon a flat bottom tile, in lieu of the board which has here been most frequently employed for a bottom with us, when one is required—the price at which these are sold being $3.75 per 1,000. They are of the same length as the horse-shoe tile, and in laying are made to break joints with them. Collars, also, are sometimes thought necessary with the pipe—simply a portion of a pipe one size larger, cut to the length of several inches, and fitting around each joint. More than once I heard it advocated, however, that the continuity of the drain is quite as likely to be perfect without the collars as with them; in the former case the whole length of the tile resting upon the ground, while in the latter the length of the collar alone is apt to be actually supported.

Here they were also making what are called "pan-tile" for roofing—and, expressing some curiosity as to the process, a workman was called in to show it to me. The pan-tile, be it known, is of oblong shape, about 14 inches in length by nine-in width, with one side curling up and one side curling down, so that the ends when laid have the appearance represented in the annexed figure. The clay is flattened out and shaped by hand upon a board of the right form. A man can make about 350 a day, and they sell for say $1.87 per 100. The under side has one or two little projections, and, in roofing, these catch upon slats far enough apart to support the upper ends of each tier of tile, the lower ends lapping perhaps four inches upon the tier below. No close boarding of the roof is necessary; the tile are laid with mortar as a security against leakage, and these slats or laths, tacked horizontally across the roof timbers, are their only support. Hollow tile of different shapes are made for the gutters and to invert over the ridge. I have spoken so much in detail, because tile is the almost universal roofing material one every where meets abroad. I really had some difficulty to explain to a gentleman with whom I was discussing the subject, what we mean by "shingles," and I realized how some of the simplest things in the world may not be very easily expressed in words on an impromptu trial. Pan-tile are made of different sizes, I should add, and what are called "plain tile," or perfectly flat parallelograms of burned clay, are also used, the latter provided with holes through which wooden pegs are driven, to answer the purpose of the projections upon the others, in keeping them in place.

Then we came to the "Chillesford" farm, containing another thousand acres, of which 400 are arable, 130 in marsh pastures, and the remainder in sheep walks. Among the stock upon it were 450 breeding ewes with their lambs, 80 rams and four or five stallions, besides the horses employed in working it. Here there are generally from forty to fifty bullocks fattened in winter, with the view mostly of their valuable services as manure-makers, and varying in number with the amount of straw produced for consumption. The cattle kept here were the Suffolk polled stock, several of which I mentioned as prize-takers at the Ipswich Show. A brief call at a third establishment, that of "Gedgrave Hall," concluded our rounds.

Among other notes jotted down during this visit, I find several rather disconnected items. A mixture of two bushels vetches to one of rye is sown for the horses in early spring, being ready to cut or graze in April. The fields in Suffolk are almost universally plowed in lands or "stetches," sometimes of 16 furrows width, or twice as wide as the drill and horse hoe are long—sometimes of only an equal width with the length of these implements. On some of the more luxuriant soils the wheat is "bla-

* H. D. Richardson.

ded," as I think the operation is called; we saw a field of 28 acres, which the sheep had fed quite bare in May, and just before it came into head the men went through it cutting off the tops as a precaution against its being laid. It was now promising a fine yield. After the sheep had had an early bite in this field, it was horse-hoed between the drills and 12 lbs. white clover seed sown per acre; after which, if I am not mistaken, the sheep again grazed it over. After harvest the stubble would be grazed, and as late in the succeeding spring as May 20, or June 1, when the clover would be permitted to come on for a crop of seed. Great care is taken to keep the low lands clean. Gangs of children are engaged as weeders and for similar tasks—so much per acre being customarily paid for their labor to the man who superintends it—who, of course, makes as much as he can out of the job, by employing his own children or agreeing with the parents of others in the neighborhood to secure the services of theirs.

Of the "Butley Abbey" farm alone, about 300 acres are drained at an average cost of $25 per acre. Mr. C. has two steam engines for threshing, &c.—one a seven, and the other an eight horse power. The "marshes" to which I have referred, are protected from the sea water by an embankment, with the usual system of drainage gates which let off the water when the tide is out, but when it rises shut by their own action to prevent its admission upon the ground. This dike extends more than twenty miles, and the marshes are very productive of wheat, as well as the best of grass lands.

With the Suffolk Swine, many in the United States are already somewhat familiar. The stock of the Messrs. Stickney and others in the vicinity of Boston, obtained directly from Mr. Crisp, has been quite widely disseminated through the country. It is classed as a "small breed," although it is difficult to say what standard of size justifies the application of the name to some of those I saw at Butley Abbey. Mr. C. was quite an exhibitor at the Royal Society's show this year, having received the second prize of $25 for a boar, the first being awarded to one of Prince Albert's celebrated breed, and having taken also both the first and third prizes in the class of sows. He has two distinct families of them, one of blacks, and the other of whites—the latter of which alone have been imported; he seemed, however, to be of the opinion that the black was the better "summer pig" of the two—better able to stand the heat, while the white is the more common, and equally good for cold weather.

Suffolk is a county of nearly 800,000 acres, in something like crescent form. Like the other eastern counties, it feels less the influence of the Atlantic in tempering the climate and rendering it moist, and the winds of the northeast in spring are spoken of as pretty sharp. The soil along the coast is mostly sandy, and there are some sands and fens in the northwest, but the central parts are of strong loam, with a substratum of clayey marl or occasionally of chalk. Draining was considerably in vogue at quite an early day, constructed with bushes or straw; claying and marling the sands was practiced, adds Loudon, "but sand laid on clay found of no use, or marl on clay, according to the old adage—

"Marle clay, throw all away;
Marle sand, and buy land."

The same writer refers to the practice of folding as "universal;" he also compliments the plowmen of the county as particularly skillful.

While writing out these notes, foreign journals bring to hand a lecture lately delivered (Dec. 7) by Mr. Robert Bond of Ipswich, in which that gentleman—who is the accomplished Secretary of the "Suffolk Agricultural Association," states a fact illustrative both of the progress of English Agriculture, and of the length of time which some of the English records cover,—that in the year 1387, 66 acres of wheat upon the Manor Farm of Hawstead in that county, produced 69 quarters of grain, and 26 acres of barley 52 quarters, 2 bushels—that is, the wheat at the rate of less than 8½ bushels per acre, and the barley at the rate of about 16 bushels. The present average production of wheat, on the other hand, is 28 bush. per acre.

The wages which laborers receive range from nine to twelve shillings per week—say from $2.25 to $3—but I think a good many operations here, as elsewhere, are paid for by the job.

It was while we were undergoing on this side the water, our annual relapse of patriotism—while our church bells were ringing, processions moving, and gunpowder proving itself most vociferous of revolutionary reminiscences, that the interesting observations were made which I have been endeavoring to record above—greatly I fear to the loss of the freshness and connectedness they possessed when gathered. And not until I had bid good-bye to the kind hospitalities of my friend, and seated myself in the evening London train, had it occurred to me, how that this "Fourth of July" was rapidly passing by without salute or celebration, and, worst of all, in actual intercourse of the most amicable kind, with one of those "Britishers," whom some charitable travellers have represented us as hating so vehemently.

L. H. T.

Great Timothy Hay Crop--Pasturing Meadows.

Mr. Eph. Gould, as certified at the Washington (O.) Co. Fair, raised the past year eight thousand, five hundred and forty pounds of Timothy hay on a single acre—cutting the amount at once mowing. The aftermath, on the first of October, was estimated equal to three-fourths of a ton. Mr. Rathbone, of Marietta, who communicates the above to the Ohio Farmer, is of the opinion that "the secret of this great crop lies in the fact, that Mr. Gould *never pastures his meadows.* The aftermath protects the stools throughout the winter, and the grass gets an early start in spring. In case of a drouth the aftermath serves as a mulch, and under any circumstances makes a good manure. Meadows that are never pastured, will last much longer than the pastured, besides giving a larger yield."

It may be questioned whether pasturing meadows is as objectionable as Mr. R. believes, but no one can doubt that Timothy meadows are injured and often ruined by close pasturing. The well known fact that this grass has a bulbous root, generally lying just above the surface of the ground, which is often broken or eaten by grazing animals, would suggest a caution to farmers against pasturing Timothy meadows or depending on Timothy for pasturage to any great extent. But there are some evils attendant on a heavy growth of aftermath allowed to remain on the ground, as all farmers know.

Probably the above crop of Timothy hay is the largest ever taken from an acre at a single cutting. The Ohio State Ag. Society awarded recently its highest premium for six tons and 1209 lbs. of hay grown on two acres.—Three tons is as great a crop as often produced—and the average hay crop of the country is usually not far from one ton per acre. That it might easily be doubled, we verily believe; and there is no item of farming which more needs or would better repay attention, than the grass crop.

KING PHILIP CORN.

The King Philip corn I suppose is named after Philip the celebrated King of the Narragansett Indians, who caused large quantities of corn to be raised and stored, preparatory to his great struggle with the colonies, and enjoined all the tribes of Indians that were in league with him to do likewise, thus providing the sinews of war; for corn, not money, was the sinews of war then. The kind of corn, or one of the kinds of corn he planted, was a rather large, white, eight-rowed variety, something like the smutty white, but larger.

The farm of one of my neighbors was purchased by his ancestors of King Philip's father, when Philip was a boy. Corn was growing on the farm at the time of purchase, and it must have been ptanted by Philip or his father, or by their direction. The same kind of corn is planted to a considerable extent in this vicinity now. On that farm the seed corn has never been changed.

Plymouth Co., Mass. E. Willis.

CULTURE OF GROWING WHEAT.

A writer in the *Mark Lane Express* argues that "of all crops wheat is most in need of tillage during its growth; for the climate requiring it to be sown in autumn, that it may get a sufficient start in spring to give time for filling and ripening the ear, there are many months longer than are taken by any other crop, in which the efficiency of the preparatory tillage may be lost, the fine particles of soil coalescing again, and excluding the atmospheric supplies of nutriment; so that long before the crop has reached maturity, or come to that critical period of the setting or the bloom and swelling of the kernel, (when the plants need "good keeping," or will fail in fecundity,) the land is almost as solid and impervious as it was before the seed-bed preparation began."

Culture is only practicable under the drill system, and the shallow tillage generally given in England under that system is found profitable, but the writer above quoted, would have deeper and more thorough culture, like that practiced under the Lois Weedon system of wheat growing, which is there found to go far to maintain the fertility of a naturally good soil without manure, as recently noticed in another place.

Underdraining with the Mole-Plow.

We find in a recent Ohio Farmer an account by J. M. Trimble of Highland, of quite an extensive experiment in underdraining prairie land by the use of open drains, and ditches cut with Emmerson's Mole Plow. Thinking it will be of interest to our readers, we condense the main portions thereof below.

The year's operations were confined to 230 acres of prairie land on the west bank of Rattlesnake creek. Mr. T. first laid out with an engineer's level 685 rods of open ditch, at 80 rods apart, varying in depth from 4 to 6 feet, and in width from 6 to 8 feet, allowing for slope of banks 1¼ feet, to one foot in hight, which was let by contract at 65 cents per rod, and finished in October, 1858. The underdrains were cut in March, April and May; first laid off with the level, but more with the view of tapping the wettest portions of land between the open ditches, than a regard to straight lines, or thorough underdraining. In this way, with the ditcher, two yoke of cattle and two men, in sixteen days we put in 1,500 rods of underdrain, at a depth of three feet four inches, and a cost of $65.

The account states that "at the time of running the mole plow, the surface of the ground was covered with water, from one to six inches deep. The surface soil to the depth of from one to two and a half feet, is a black clay, or loam, rather a compact, tenacious soil; the subsoil is a close, compact, yellow clay, to the depth of from three to five feet." The sod was then broken up, or turned over, from six to eight inches deep, harrowed (200 acres of it,) and then planted to corn, finishing the 200 acres on the 23d of May. On the memorable fourth of June it was up from 6 to 16 inches high, but on the morning of the 5th, all lay flat with the ground. It was then plowed up and replanted, and the product under these circumstances was 60 bushels per acre. The 30 acres planted last, on the sod and without culture of any kind, produced 40 bushels per acre. In relation to the working and success of the experiment, Mr. Trimble remarks:

"The underdrains all performed their work well up to the middle of July, when they began to fail, and by the first of August were perfectly dry. I have been on the farm from the 3d up the 25th of November, during which time we have had several hard rains; and I have examined the outlets to all of the underdrains, which, without a single exception, are passing off large quantities of water. From a close observation during the summer, I am satisfied that the underdrains were quite as important to the growing crop during the drouth, from May to September, as they were in carrying off the surplus water in the spring; and I am equally certain that the increase of crop, resulting from draining is all of 20 bushels per acre, which would leave the account stand thus: Six hundred and eighty-five rods open ditch, at sixty-five cts. per rod, $445.25. One thousand five hundred rods of underdrain cost $65. Use of ditcher, wear and tear, $25 75. Entire cost, $536. Cr. by twenty bushels of corn on two hundred and thirty acres, gives four thousand six hundred bushels, at 25 cents, $1,150; showing a profit of $626 in favor of the mole plow in a single year."

In regard to other experiments which have proved failures, it is remarked:

"The mole plow has been condemned from the fact of improper use, not procuring sufficient outlet, running the ditches too shallow, and failing to reach the clay sub-soil with the mole. I have no faith in the use of the implement without a clay sub-soil for the mole to operate in. Otherwise the aperture made by the mole will cave, and fill up."

Strawberries Mulberries and Grapevines.

EDS. CULT. AND CO. GENT.—I am intending to set out quite a quantity of the Wilson's Albany and Hooker's strawberry plants next spring, and have thought of adopting the mode of culture of alternate strips. I wish to inquire if these two varieties do well when cultivated in this way? Hovey's Seedling does not, for a very large part of the young plants formed in the preceding autumn will not bear any fruit. How is it with the Albany and Hooker in this respect? (1.)

I also wish to inquire as to the merits of Downing's Mulberry. Is it a fine fruit worthy of general cultivation, hardy and productive? Are not birds fond of mulberries as well as cherries? (2.)

Can you inform me how grapevines are grown from single eyes in the open air? Also how to raise extra sized layers for immediate bearing? (3.)

Is the method of propagating the Blackberry described in the December number of the Cultivator, equally good for the raspberry? (4.) SUBSCRIBER.

1. We have found the preceding year's plants of the Wilson and Hooker, but more especially the Wilson, to produce well the next spring, but not so abundantly as their second year. When they do not the first year, thin them out, and they will make amends the second year.

2. We have found Downing's mulberry hardy, but cannot speak personally of its merits as a fruit, nor of the fondness of birds for it.

3. Grapes from eyes are usually grown in propagating houses or hot-beds, and not in the open air. Grafting is the best for immediate bearing.

4. Both the raspberry and blackberry are thus propagated, but the raspberry does best in a propagating house, with a little bottom heat.

Green Corn Pudding and Succotash.

Will you or some of your subscribers, inform me how to make corn pudding of green corn or roasting ears—also how to make succotash. H. G. P. *Butler Co., Pa.*

Grate the green corn from 24 ears—to this add 1 quart of milk and 3 eggs, 1 tablespoonful of sugar, half a teaspoonful of salt. Now, this must be varied according to the age of the corn; if the corn is old add more milk or take less corn. Bake in pie dishes, till of a proper custard consistency.

Succotash is of two kinds—green and dried corn. For the first, boil the beans first, as they need more cooking, then shave the green corn off the cob, and boil it with the beans. then season to taste with butter or cream. With dry corn, the corn must be soaked until it is thoroughly swelled out tender, and then treated as the other.

[For the Country Gentleman and Cultivator.]

CULTURE OF THE ONION.

Eds. Co. Gentleman—There is in the "Co. Gent." an inquiry for "a good article on the Culture of the Onion." The answer comes in an article by J. W. Proctor of Essex, Mass., but as the onion is very largely cultivated in this vicinity, many farmers raising from two to twelve acres, and as our mode of cultivation may differ somewhat from that of Mr. P., I have concluded to write you a short article on the subject.

1. The ground selected for onions should be the *best* on the farm, as free from stones as possible; and it should be made very rich by the application in large quantities of the best manure to be had. We have lately practiced plowing in our manure in the fall, and then in the spring we harrow thoroughly, and give a top-dressing of some bought manure—guano, bone-dust, or whatever we prefer. In this way we can sow our seed from one to two weeks earlier than if plowed in the spring, and experience shows this to be very important. Whether plowed in spring or not, the ground must be well harrowed—every stone or any other obstruction picked carefully off, and then made very smooth and level with a hand rake. Extra care in the preparation of the ground is amply repaid in the after cultivation.

2. When the ground is ready, we sow our seed, using a small machine which sows two rows at a time as fast as a man can walk. This machine is made near here, and I have never seen it in the agricultural stores. To the onion grower it is invaluable. The seed after being deposited in the drills, is covered by *pushing* a common hoe along the row, very lightly and carefully. The covering is sometimes done by a board attached to the machine, but I do not think in as perfect a manner.

If the weather is favorable, the plants will be up in about three weeks, and then the labor of cultivation begins. Our rows are *twelve inches* apart, and we use, for the space between the rows, very narrow hoes, about nine inches wide, and so narrow that the earth will run freely over without *moving along* in front. There have been two machines contrived during the past year for hoeing onions, and they promise to save a vast deal of labor. The weeding is done by hand, the boys passing *over* the row on their knees, and taking out the weeds with a small hoe an inch or two wide. These tools are best made from a thin saw plate, and should be kept *bright*. They are very handy about the garden. The weeding should be continued until the crop is fit to pull, as the injury done by going through the onions when large, is not half as great as that caused by the weeds going to seed for next year. When ripe, the onions are pulled and left on the ground to cure. They should be thoroughly dried, and then, if stored in a cool, dry place, they will keep without much trouble the whole winter.

The average crop with us is about 500 bushels per acre, but 800 are often grown. And the average price is $1.50 per barrel, from which it is easy to see that with a good market, and thorough cultivation, the crop can be made very profitable. Edw. J. Taylor. *Southport, Conn.*

[For the Country Gentleman and Cultivator.]

Driving Bees---Bee-Hives, &c.

In the Country Gentleman of Jan. 5, I noticed the inquiry "S. H. S.," for a method of driving bees from one hive to another. He asks if it is possible? It is, and very easily done. The simplest mode which I am acquainted with, is to take the old hive a short distance from its usual place, and put an empty one instead. Having protected your hands and face in such a manner that they will not be able to sting you, then jar the hive—the bees will fly out, dart back to where the hive used to stand, enter the new one, and soon become domiciled in their new abode. This operation I think is sometimes very beneficial, especially when the comb has become old and dirty—it seems to have the power of rejuvenating the old swarm. When they have about all evacuated the old hive, it can be carried into a dark room or cellar, being careful to have a small hole through which a little light can penetrate—the remaining bees will fly to this, and thence find their way to the new home. This plan is a very good one for clearing box honey of bees.

Another plan is to invert the hive—set another one directly on top of it, adjusting it in such a manner that the bees cannot escape without getting into the new hive. Then breathe tobacco smoke into the bottom of the old one, gently tapping the hive at the same time—a few moments will suffice for the bees to clear the old hive. Care must be taken not to apply the fume too strongly, or it will make them so torpid and stupid that they will not stir, resisting all efforts to dislodge them. I think this is the reason why many fail in driving them from boxes with tobacco smoke—they are rendered stupid before they are aware of what ails them. Bees naturally have a strong antipathy to tobacco smoke, and will always get out of the way if a chance is given them.

Still another method I heard spoken of the other day. It does not differ materially from the first however. It is this—Cover the face, &c., to prevent stinging—then place a rope of good length around the top of the hive from which you wish to expel the bees—set it off the plank—place another instead—and then carefully place the one containing the bees on your back, holding it to its place by the rope. Then take a stroll out in the lots—a few turns will suffice to dislodge them. I should not prefer the last method for several reasons not worth mentioning.

My father keeps about 40 or 50 swarms of bees. The hive which he uses—got up by himself five or six years ago—is very well liked by those who have seen it, and used by a good many. It is different from any description that I have ever seen. Perhaps it would suit the ideas of some of your readers, and I will give a short description of it. The proportions of the hive are as follows: Height two feet—one foot square clear inside—space in top for box 9 inches high—leaving 14 inches space below the box and partition board for the bees to form comb in. Door in front, 20 inches, is put on 4 inches from the bottom. If put any nearer than that, the bees when hanging out, are apt to get on it, thus hindering the opening of the door. Ventilator in the back of the hive near the top. An auger hole is made through the partition board for the purpose of letting the bees into the boxes. A glass 9 by 12, is placed in the lower part in front, for the purpose of examining into the wellfare of the bees. He always planes and paints them.

The dress he has for the purpose of hiving the bees, is made of coarse book muslin or musqueto netting, or anything which will admit of a free circulation of air, and will prevent the bees from getting near his face. It should not be so close as to obstruct the sight. It is made something in the shape of a shirt, with sleeves, and reaches down well in the waist. The upper part is entire, with the exception of a hole of three or four inches in diameter. It is drawn on over a hat, the crown of the hat protruding outside. The brim of the hat keeps it clear from the face. This, with the addition of a pair of gloves which come well up the wrist, when they are well tied on, make a rig which costs but little, and one which any person, when they have them on, need have no fear of bees.

There are quite a number of bees kept in this section; but very little pains is taken to house them, however—are generally left out without any protection whatever during the winter. In the spring the colony comes out very much weakened. This I think is one cause of so many failures, together with carlessness in spring when they are hatching. There are exceptions to this rule however, some taking excellent care of them. Still bee-keeping here as an art is in its infancy.

Bees situated a mile from the lake, which is 2½ miles wide, often cross it for the purpose of getting honey. E. A. King. *Cayuga Co., N. Y.*

Rensselaer Co. Ag Society.—The annual meeting of this Society was held on the 17th inst., for the exhibition of winter crops, and for the election of officers for the ensuing year.

The Society resolved to purchase six acres of land lying between Troy and Lansingburgh, at $300 per acre, for the permanent use of the Society, and to make a sale of its present property in Lansingburgh.

The Hon. George Vail of Troy, was elected President. The retiring presiding officer, L. Chandler Ball, Esq., delivered an eloquent address, for a report of which, and of the proceedings of the Society, we are indebted to the "Troy Times." Since the last meeting two of the earliest friends and most efficient officers of the Society have died; B. B. Kirtland of Greenbush, and Joseph Hastings of Brunswick.

[For the Country Gentleman and Cultivator.]

OSAGE ORANGE FOR HEDGES.

Eds. Co. Gent.—The question naturally arises, with what shall we fence our fields a century or even a half century hence? When we look over the map of North America, we find that a considerable portion of this vast territory is comparatively destitute of timber. From the western line of the State of Indiana to the eastern slope of the Rocky Mountains, a distance of some twelve hundred miles east and west, and south from Kentucky, including Missouri, Kansas, Nebraska, Iowa, Illinois, and a part of Wisconsin, timber in this vast region is greatly in want. The eastern States once were heavily timbered, but the stately oak, with his vast list of associate neighbors, are, to a great extent, gone; so much so that many of the inhabitants are now for purposes of economy, and to save the small remnant of timber left, compelled to use coal for fuel from the mines of Pennsylvania. The question is, what shall we do for materials to guard our crops from our domestic animals? In many locations in the eastern States, a supply of stone is at hand. With stone laid in wall a good fence is made; but in the vast northwest we have neither timber nor stone.

It was believed by some in this region that a fence could be made of a ridge of earth well sodded, by carefully cutting up the prairie sod into squares as large as a man could lift, then throwing up the dirt and making a ditch about two and a half feet wide and two feet deep, then over the embankment placing the sod. These fences were of short continuance as the sods seldom compacted and grow. The heavy beating rains and frosts of winter soon made gaps in them, and after a year or two became unsightly and useless, affording a fine place for cattle to cut their pranks in, making the dust fly with their horns. Thousands of miles of this sod fence have been made on our open prairies, but now seldom a trace of them can be found.

The heaviest and best trees of our timber have been felled, worked up into rails or used in building, and are now nearly extinct. For the last few years, as the west has rapidly increased in population, posts and boards have been mostly used for fencing. The new settler could not wait to raise a hedge—his crops must be protected, and as posts and boards were the most ready material, they were chiefly used. When the pines of the north are gone, and the supply of timber from that source fails, I again ask, with what shall we fence our farms? Nature has furnished us with a sure and reliable material, viz.: the Osage Orange or Maclura shrub.

Some fifteen years ago, Prof. Turner, of Jacksonville, in this State, and a few others, procured seeds of the Maclura from Texas; planted them, and tried the experiment in hedge growing. Their labors were crowned with success. Soon there was a great demand for seed, prices ranging from $20 to $30 per bushel. The seeds were sown in nurseries, and at one year's growth, packed and sent to purchasers many miles distant at $10 per thousand. To encourage the growth and to induce people to try the hedge, the State Ag. Society offered liberal premiums for hedges at different ages of growth. The County Societies also rewarded the owners with suitable premiums for best hedges. We do not say that all who *tried* the plants succeeded. There are men who have the best of stone at hand, who cannot or do not lay them into a handsome and compact wall. Neither do we find a good substantial rail fence made, even where the rails are of the best kind, or a good post and board fence made even out of good materials. Some ment *wont* do their work well; they will make a balk or a botch of anything they undertake—so with hedge growing—they will not do it right even if a good pattern is on their first neighbor's farm. In growing an orchard, how many fail? We cannot, therefore, expect that all who attempt it will succeed. To meet with success, as in everything else, the work must be done *well*.

As I have had some experience in hedge growing, I will give it to your readers, hoping that I may induce others to *try*, for the question is still before us, "with what will we fence our fields?" Twelve years ago, one of my neighbors bought 2,000 plants of one year's growth at a cost of $10 per 1,000. These plants, after being assorted, were set out in a line of about 100 rods, and carefully cultivated and trimmed for three years. Since then it has been cut down but once, leaving the main body and limbs about five feet high. Now it stands full ten feet high, and has been a perfect barrier to all quadrupeds since the third year after setting out. Others in this neighborhood soon followed, but had to send some 200 miles to get the plants. Traveling agents were employed to scour the country and contract at prices from $6 to $8 per 1000, delivered, with full directions for setting, trimming, &c. Some furnished plants, prepared the ground, set out and cultivated for four years, and then by previous contract received 80 cents per rod. Some of the best hedges in our county are those as last described.—Now thousands of miles of very excellent fence are stretched over our western lands.

As the seeds were all procured from Texas, a trade of considerable importance sprung up. Now the seeds can be had at from $12 to $16 per bushel anywhere. No doubt there were many worthless seeds sold, but now, those who are acquainted with them, can readily detect the spurious or defective. We know large nurseries, some growing from 100,000 to many millions annually, who sell at from $1.50 to $2 per 1000. I understand that Messrs. Overman & Mann, near Bloomington, in this State, the last year planted over 100 acres with seed. I have not tried to raise the plants from the seeds but once, and then met an entire failure. The safest way, I consider, is to buy the plants of the nearest nursery, carefully assort them into three classes—the best and largest set out together, and also the second size by themselves, and the third class should be used for the stove.

After the plants are procured from the nursery and assorted, with a spade make a trench some ten inches deep—make a grout of loose dirt and cow dung, thin enough to well cover all the roots—then place them in the trench and cover about two or three inches above the top of the roots, care being taken to have all the roots well bedded in dirt. After the buds are well open, and the leaves begin to appear, transplant. The ground should have been plowed in the fall about eight feet wide, by leaving the last furrow in the center at least a foot deep. In the spring commence in the center and throw the dirt all back, leaving a fine mellow bed to receive the plants. It will do to prepare the ground in the spring. By either time, be sure to have a finely pulverized soil to receive the plants. Draw a line, no matter how long, and fasten it to its place by driving hooked stakes over it; then with a spade, which is thrust at least ten inches deep, place the plants which have again been grouted and assorted, after being taken out of the sprouting bed and put in their places. A man with his spade, and a boy to put in the plants, can set half a mile in a day. While setting, the spadesman tramps the dirt carefully, but not too tightly, about the roots. The plants should be set about two inches below the place where they grew in the nursery, and about six inches apart in the row. All the yellow part of the root should be out of sight.

If there are low moist places over which the hedge is to pass, raise the dirt some two or three feet high and keep the two ditches cleaned out that the water may have a free chance to run off. If a low place is to be crossed, where water is liable to stand, bring the hedge raised on the embankment to the center of the low ground, then cut a deep ditch, sufficiently deep to carry off all the water, or under drain, which is better. At the opening in the ditch set two or more posts and board up. It is very necessary that this care be observed in crossing low ground, as the roots of the Maclura run almost straight down and very deep—and they will no more thrive in a wet subsoil than an apple tree will. As a general thing, we, in this region, have been too anxious to have a long unbroken line of hedge by setting plants without proper care over the low places, but to our sorrow have many gaps more wide and hedges more defective, by neglecting to give the roots the advantage of a dry foothold.

The plants after being set, are carefully cultivated and not trimmed the first year. Before the ground freezes in the fall, with a plow throw up four deep furrows on each side; the dirt being well thrown in among the plants. Then with a hoe, level the dirt about them to the amount of some six or eight inches—clean out the drains on both sides, particularly at the place where the hedge crosses the ditch, if any. The hedge is now ready for winter. Straw and brush about the roots covered with dirt is good for protection, but not safe, for it affords a winter's home for mice. In the next spring, not before the middle of May, (for the Maclura is slow and late in leafing out,) throw back all the dirt placed around the fall before, and trim and cut down to within about four or six inches of the ground; cultivate well during the summer. In the fall bank up as before. In May next, remove the dirt and cut down, leaving the hedge about ten or twelve inches high. In June (about the middle,) the plants have a little over two years growth in the hedge; cut back a little and shape the hedge, leaving it like a boy's top turned upside down; it will now be about 16 or 18 inches high. In the fall bank up and clean out the ditches as before. If the frost gets under the roots in the low lands, there is danger of freezing and heaving out. In the spring of the fourth year's growth, trim, leaving the hedge about two to three feet high, (all of an even height at top,) cultivate as before, and in Sept. sow white clover seed on each side.

You now have a fence that will guard your crops from all intruders. When openings are left for gates or bars, place on either side a good substantial post; if not done, the cattle will break down the plants, or the wagon wheels under the management of a careless driver, will break them down. When your gate is ready to be hung the hedge should come close up to the posts. This makes all snug, tidy work. After this, either late in the fall or in spring, trim and preserve the hedge in shape of a boy's top with bottom upwards. In growing a hedge, it is very important that every part of the work be *well done;* more so, perhaps, than for anything else. If a fruit tree fails in any way it can be replaced by another; but when gaps occur in a hedge by being trampled down by cattle, or frozen or drowned out by standing in low wet places, you cannot well repair it. To have a hedge with occasional brakes and imperfect places in it, is truly an unsightly and a very unpleasant affair. If all the rules above laid down are carefully observed, all may fence their farms with this invaluable shrub. It is evident, from past experience, that in all soils, in latitudes where the apple tree flourishes, the Osage Orange or Maclura will, if properly cared for, FENCE OUR FIELDS successfully. C. G. TAYLOR.

Hazlitt, Rock Island Co., Ill.

Bees for California.

The shipment of bees for California and Oregon has been a brisk business for a few months past. One hundred dollars a stock—the price paid—for good ones, has sent out a host of speculators. Our valley of the Mohawk has furnished a goodly share. From between Utica and Schenectady there have been sent off over one thousand hives. M. QUINBY & Co., St. Johnsville, furnished five hundred and twenty-two. The greatest number shipped at any one time, was the 5th Jan. A loss of from fifty to eighty per cent attended the first attempts, mostly for want of room and ventilation in the hot climate they passed through. A sheet of wire cloth was simply tacked over the bottom of the hive to confine the bees, and resulted in destroying the most of them by heat and suffocation An approved and more successful mode now, is to make a box or cage of wire cloth large enough to hold nearly all the swarm, and put it over the bottom or top of the hive. When the interior of the hive becomes too warm, most of the bees will leave and come out into this box, where they are much more comfortable, as the air can freely circulate through it. They are placed on the upper deck of the ship, and at the same time kept as much as possible from the light. It would seem that an effort is being make to extend this trade into other quarters. Mr. Q., we understand, has filled an order recently for some to go to South America.

SAVING GIRDLED APPLE TREES.

EDITORS COUNTRY GENTLEMAN—I have an apple tree about one inch in diameter, which has been completely girdled by mice for two or three inches from the ground. Can I not save the tree by cutting a square piece out from one edge of the bark to the other on both sides of the tree, and then fit in other pieces of wood with the bark on from a limb or tree of the same size, tying them fast and covering the whole with a coat of wax? If you know of a better way, please inform me through the columns of the Cultivator. A SUBSCRIBER

The mode described by our correspondent has been long practiced with success; but it requires great care in fitting the parts accurately, and especially in cutting off the inserted pieces to exactly the right length. A much easier, more certain, and far more expeditious mode is described in the first vol. of Rural Affairs, p. 333, which we copy:

A number of young shoots or portions of the branches of apple trees are first provided, and as they are wanted, are sharpened in the form of a wedge at each end, being long enough to connect the upper and lower portions of the bark separated by gnawing. A chisel, the breadth of which is about equal to the diameter of the shoots, is then driven into the bark, (say half an inch from the gnawed edge,) both above and below, and the prepared or sharpened shoot is then firmly pressed at each end into the cut made by the chisel. This is easily done by first bending the shoot outwards at the middle, so as to allow each end to enter, and then crowding it in again. The place must be then well waxed. The *edge* of the chisel must be placed so as to make a horizontal line in the bark, and then be driven nearly vertically upwards or downwards for the upper or lower parts of the bark. When the shoot is placed in the cut thus made, some portions of the line between the bark and the wood in both tree and shoot, must necessarily coincide, and as a consequence, the two parts almost invariably adhere and grow together—there is scarcely ever a failure. Fig. 1, represents a girdled tree; Fig. 2, the same with the shoots inserted; and Fig. 3, is an enlarged section, showing the position of the sharpened end of the shoot when in its place. The great advantage of this mode consists in the rapidity with which the work may be done, and the difficulty of displacing or knocking out these shoots when once in. There should always be a few stout stakes driven around each tree, to keep off plows, harrows or cultivators, which might otherwise strike the tree and loosen these shoots.

FIG. 1.

FIG. 2.

FIG. 3.

The shoots used were about one-fourth to one-half an inch in diameter when applied, and they had already tripled their original size. Probably larger ones would be better, and the more numerous they are the greater will be the security, and the sooner they will grow and unite in one solid trunk.

[For the Country Gentleman and Cultivator.]

Wintering Cabbage.

I have practiced for four years, the following mode of wintering cabbage, and it has proved so well, I give it for the benefit of others. My cabbage are left out till there is danger from frost. The heads are then cut off, with a few coarse leaves, and if winter does not seem to be upon us, thrown into heaps, and covered with litter of some kind, till winter seems to be coming in earnest. Then the cabbage are put in heaps by placing them on the ground—three for the bottom course, two for the second, and one for the top. Make your heap as long as you wish—pack them close by putting largest at bottom, and keep the stem end up. Cover ten to twenty inches or more with earth, without any straw. The earth must be in proportion to the frost. A little frost will not hurt them if the cabbage are not taken out till the frost has left them.

A. S. MOSS.

Farm Improvement---I. Size of Fields, etc.

Progress in Symmetry, Fertility, and Capacity for Profitable Cultivation Desired--Importance of Well-Planned Subdivisions—Rules for Laying out Farms, by J. J. Thomas—What shall Determine the Size of our Fields?—Amount of Manure available, should do so under a System of Mixed Husbandry—A Case Supposed and a Plan Proposed—One Field at a Time, and Thorough Work with it—Clear, Fence, Drain, Manure, and Plant to Corn—The Evils of "Fields too Large for the Manure"—Why Corn should be a First Crop—Hints on the Rotation to Follow, etc.

"How can I improve my farm—how can I increase its symmetry, fertility and capacity for profitable cultivation?" asks the progressive farmer, and the subject receives his earnest and careful consideration. He studies the present state of his farm and its facilities for improvement, with an eye to making the most of it as a home, and as a source of income and support. He looks to its adaptation to different products, and to the best means of fitting his soil for large returns from those suited to its capacity; not in the twilight of tradition alone, but in the sunshine of modern agricultural literature—an aid to which he gratefully acknowledges his obligations. Every farmer should study thus—should earnestly seek to make the best of the means and opportunities he possesses.

The symmetry of a farm, and the system with which it is carried on, depends to a considerable extent upon its subdivision into fields, and the character of its fences. A well considered plan here, "lies at the very foundation of convenience, system and economy." Upon the general subject of laying out farms, we can do no better than to reprint here, from THE CULTIVATOR of 1852, some general rules, closing an article by J. J. THOMAS, who has further illustrated it in the Annual Register for 1859, to which we refer the interested reader.

"1. The farm-road or lane should be as short as possible in connecting the fields with the buildings. If *much used*, the *form* of the fields, if needed, should be made to conform to this requisite, and to its levelness.

"2. The barn and other farm buildings should be as near as practicable to the center of the arable land, for economy and expedition in the cartage of manure and crops; at the same time that access to the public road should not be forgotten.

"3. The number of fields should be accommodated to the system of rotation established on the farm, and should therefore be as nearly as may be of equal size.

"4. The fields should be made nearly square, for economy of fencing material, and to save occupancy of land by boundaries, less being needed for a square than any other rectangular form.

"5. When the land varies greatly in character, as in wetness or dryness, &c., such as is most similar should be brought within the same boundary, to be subjected to the same treatment in rotation. Dissimilar fields may however often be rendered alike by draining and subsoiling, when not otherwise easily subjected to a regular system.

"6. Bringing streams of water alongside the fences, affording facilities for irrigation, and also supplying water to each field for stock, should not be overlooked.

"7. Hills should be brought near the center of fields, to enable the plow to pass around them, to throw the earth downward from the mould-board.

"8. The area of each field should be determined, to enable the farmer to judge of the requisite quantity of seed and manure, and to measure the amount of crops, etc., etc."

The particular question which we would now discuss, is, what shall determine the size and number of our fields, or in other words, what "system of rotation shall we establish on the farm." If we unite grazing with grain-growing, which we must do to keep our farms fertile, we must have a considerable part of the farm devoted to pasturage, and shall need a greater number of fields than for either branch of farming taken alone. On a grain farm, with a four course or crop system, five or six fields will suffice, though other means of enriching the soil, aside from the barn manures of the farm, must be depended upon. We would propose, then, that *the amount of manure* which the farm can furnish, determine the size of the fields.

We will suppose that a farm is now without systematic division into fields—that the fences follow the lines of the old clearings, and that the soil, though naturally good, has been pretty closely worked, and is not equal to the production of good crops. The owner, with only the usual means at command, wishes to "turn over a new leaf"—to improve the symmetry, fertility, and profit of his farm, and to do it gradually, as his capital and force will allow. We could suggest no better plan than the following.

The division of the farm into fields of an extent appropriate to the manure made in any year, should be accomplished. This may be done gradually; but the fields as taken, should be put into good condition, finishing up the work as far as may be, within the year. Fence each field well, clear it of stones and stumps, underdrain it if needed, then manure it heavily, get it in good order, and plant it to corn and potatoes. These carefully cultivated, will leave the land in good condition for a grain crop, perhaps two of them, and then seeding to clover; and this course followed from field to field, with good management of every crop, will in a few years put a new face on any of "our common run" of farms.

We propose this criterion of the size of fields, because it is a mistaken though common policy to attempt the working of more land than we can fully fertilize and thoroughly cultivate. As we have urged before, in speaking on this point, (Co. Gent., Aug. 26, 1858,) the evil of "fields too large for the manure" brings many losses in its train. It is this which has led to the decreasing average product of so many of our staple crops, so much harped upon by statisticians. We have exhausted the original fertility of the soil—we must supply it by a different system of management. There is no decreased average under the better system of farming—the soil is as good as ever if fed and tilled as it should be, and in most products the yield has been increased beyond its old amount. The labor once given to clearing off forests and bringing new land into cultivation, must now be applied in giving old land better culture—to applying to use the fertilizers within our reach—to securing large crops by increased attention to the conditions necessary to their production as developed by a careful study of their characteristics in growth and purpose.

The corn crop has been particularised as a first crop for several reasons. It should have a place in every rotation where the soil will admit, and it is well suited to take precedence in any plan of improvement, as it can scarcely be injured by any amount of manure, fresh or fermented, which can be applied. It can receive that thorough and frequent culture necessary to clear the land of weeds, and it is a crop having no deleterious influence on those succeeding it in the course. From fields so treated, fifty bushels of shelled corn is not an uncommon crop; this is followed by a heavy crop of barley or oats, and then with a light dressing of manure, a good yield of wheat has been had, and this was succeeded by a grass crop, giving under proper treatment, three or four heavy annual crops of hay or pasture, when the ground was again brought under the plow.

The length to which our present remarks have extended, induce us to close without presenting all the considerations which occur to us upon the subject. We may recur to it again, but shall next refer to drainage and manure as bearing important parts in the work of Farm Improvement.

LARGE OR SMALL FARMS.

The first step toward a reformation of the rude and unsatisfactory condition of farming in this country, is for farmers to sell half their land, and to expend all their capital, labor and manure on the other half. This grand remedy is proclaimed everywhere, and become almost stereotyped in the agricultural columns of the periodical press.

But are there not two or three fatal errors in this scheme of reformation? First—To whom shall the owners of large farms sell half their land? There are now more farms in our country, than there are men who are capable and willing to manage them. There is nobody to sell to. We have the land, and we have only so many to work it. Those in the professions, in the trades, or in commerce, would but very few of them be induced to turn to the labor of the field. And would there be any gain if the land should be divided among the laboring men? Are not two hundred acres of land better managed, and more economically, by the same force in a single farm, than if divided into four farms? It seems to be assumed that a small farm must be better managed than a large, which is not true according to our observation. Every where in the country, large farms are in as good condition, if not better than small ones.

Again—we are told that if the manure should be applied to a smaller area, the crops of fifty acres would be equal to the present crops of a hundred acres, making a vast saving of capital, taxes, fencing, labor, &c. We might ask how fifty acres can be manured from its own resources better than a hundred acres from its own resources, for it will be granted that the principal source of fertility must be found upon the farm itself. I suppose no zealous advocate of high culture would propose that the manure of the whole farm should be given to one-fourth of it, and the other three-fourths be abandoned to inevitable barrenness.

I do not deny that our style of farming is very far inferior to what it should be, and to what it will be. But I do not look to a subdivision of land as the sure means of hastening an improved system. I think the present tendency is the other way; small farms are being united with larger ones. This is growing out of the fact that land is managed with more economy in pretty good sized farms, and at a better advantage in many respects—requiring less proportional outlay for team and implements—admitting a greater variety of stock and grain in a mixed husbandry, which is best.

I do not apprehend any danger of an overgrown landed monopoly, which is contrary to the genius of our institutions. It is a happy thing for our country, that the whole system of rural labor in this country is against the creation or perpetuity of large landed estates. The noble business of farming cannot be monopolized, like manufacturing, by associated capital, but will ever be free and independent.

There are reasons enough that our agriculture has been in such a low condition. We are comparatively a new people; every thing has been hurried, and unsettled, and superficial. Now the times demand skill, thoroughness, and a wiser expenditure of labor. Labor is limited; we cannot increase it at will, and it is high; but no matter, well directed, it will pay. But it must have room—and there is room. Young men need not go into other professions; neither should they be shut up in a narrow patch insufficient to call out their talents, and afford them a handsome income. Some who have not sufficient capital of their own, may unite, for a time, in a farm of respectable size, especially members of the same family. "Two heads are better than one," sometimes. In other business, the heads and the purses are united pleasantly and profitably. It is better to keep the old homestead intact, under the wise counsels of the father and the activity of the sons, till there be means sufficient for one and another to go forth to an estate of his own. This we sometimes see realized in the happiest manner. The cares and labors of the farm are divided, the discouragements of debt are avoided, and the pleasures of this delightful occupation increased. N. Reed. *Amenia Union, N. Y.*

SHEEP RACK.

Messrs. Editors—Herewith I send you a design for a sheep rack, in a form used by me during the last eighteen or more years. It may not be too late in the season to be of use to those, who, like myself, are sometimes rather "behind time" in doing those little jobs which were as well (or better) done somewhat earlier, *if convenient.* I have just finished the repairs to an old one, and am now engaged in making several new ones of some eight feet in length, requiring some 24 rounds.

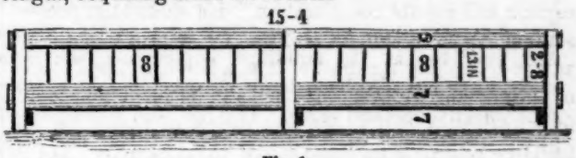


Fig. 1.

For a rack of the dimensions above given, take two boards 5 inches wide, 1¼ in. thickness, and 15¼ feet long—two do. of the same length and thickness, 7 in. wide—two do. 5 in. wide, 2.8 ft. long—two do. 7 in., 2.2 ft. in length—for the sides and ends, and three pieces 5 in. wide, 2 ft. long, to lay the bottom boards on—(or 8 in. wide, for the ends of the trough if grain is to be fed.) Also six posts, 2.8 ft. long, of oak, or other lasting timber, 2 by 4 inches.

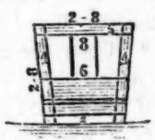


Fig. 2.

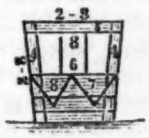


Fig. 3.

Into the lower edges of the 5 in. top boards, and the upper edges of the 7 in. lower sideboards, bore three-quarter inch holes, 2 or 2½ inches deep, 8 in. from center to center, and 8 in. from the end (and side) studs—also about 7 in. from center to center, in the end top boards; in the lower end boards the holes will be about 6 in. from center to center. Of good tough wood, (white oak, or if to be had, "*swamp oak*" is best,) 18 inches long, make 44 "rounds," split and shaved so as to be about one inch in diameter in the middle, and three-quarters, some 2½ in. at each end—(paint the ends when used.) Nail the 5 in. top boards of the sides to the outsides of the tops of the two inch sides or edges of the studs, letting the side boards extend an inch and a half beyond the studs, and drive in the rounds. Put the lower boards on the ends of the rounds, and drive them to within some 13 inches of the top boards. Make the ends in the same manner, excepting the *slope of the studs,* which should be about 4 in. on each side; the width at top being about 2.8 ft., and the bottom 2 ft. or less, as wished. Nail the three 5 in. supports for the bottom (on the *inside of the end posts,*) to the posts, so that the tops of them will be *the thickness of the bottom boards* from the *lower edge* of the end boards. Put in the bottom boards with the ends extending to the outer side of the lower end boards, and it is ready for use. See figs. 1 and 2.

If grain is to be fed, the bottom may be made of *two* troughs, with boards about 8 inches wide, put edge to edge, in triangular form, with 8 in. supports, cut to fit and nailed to the studs, (instead of the 5 in. supports.) See fig. 3.

A rack thus made, is light, easily moved about, and strong enough to last *twenty years,* if properly housed when not in use. The rounds, though small, are light and smooth, not tearing off the wool like the clumsy and rough strips of boards generally used. And I think I made mine with less labor and materials, than I could have done in any other manner which I have seen described or used—not even excepting the celebrated "Geo. Geddes' Rack."

Seneca County, N. Y. J. H. H.

Selling Apples in the Spring.—I have neglected to report in regard to my fruit cellar of late. My last year's stock was consigned to the New-York market about the first of May, and sold most readily at $7 to $8 per barrel. I have about 150 barrels "of the same sort left." I W.

THE INFLUENCE OF EXAMPLE.

There has been no period in the history of Agriculture without its examples of productive and profitable farming, but probably at no previous time has there been found on the acres tilled by American Industry, so many bright spots to gladden the hearts and encourage the hands of the friends of improvement. The time has been when nearly every farm under cultivation for fifteen or twenty years, seemed rapidly deteriorating in fertility and in product, but at present many old farms give better returns than ever before. In buildings, implements, and farm stock, there has also been large advancement in appearance, effectiveness and value. This has been accomplished by the introduction of radical reforms in theory and practice, and extended by the influence and light of example.

Our meaning may be explained further by an instance in amplification. When an intelligent and thorough-going practical farmer buys in a neighborhood of well-worn farms, and engages in the work of reclaiming and improving his new purchase, his movements are sure to awaken a spirit of inquiry, and his example and success can but exert an influence upon many of those who witness it. He does not grow crop after crop of the same grain upon a field until it will produce it no longer, but secures good crops of different grains and products upon the several fields of his farm by a carefully adapted rotation. He introduces new and improved varieties of grains and fruits, the products of which are seen at a glance to be greater and of better quality than those commonly grown, and of better demand and price in market. The same is true of his domestic animals. His example goes to show that care in selection, in breeding, and in feeding, is well repaid—that at a small expense, a good return is ensured without fail. With improved implements of tillage, he accomplishes a deeper and more thorough cultivation of the soil, resulting in better crops, and insuring these against the effects of seasons of drouth or excessive moisture. His war against weeds is unceasing, and it soon tells in the appearance and productiveness of his farm. Clean culture is the rule with all hoed crops, and clean seed and clean summer fallows and fence corners, soon give him a farm exempt from the heavy tax upon its fertility, which is paid in the production of useless and injurious vegetation. He gives great attention to making, saving, and applying manures—seeking in every way to enrich his farm; a course that tells at once upon the products thereof, putting a new and attractive face upon all things. He affords them an example of the effect of underdraining in the radical improvement of the soil—an improvement so wonderful that it must be seen to be believed—and (to instance nothing more in this connection,) harvests his crops, and forwards all the farm-work admitting of their employment, by using the best labor-saving implements of this inventive age.

These improvements, as we remarked before, exert an influence upon the farmers who may see or hear of them. They may doubt and cavil for a while, but the unmistakable signs of prosperity to be seen upon the farm and with the farmer—showing his course to be highly profitable—will generally influence the most incredulous, if they possess any degree of enterprise, into some sort of an imitation. These slight beginnings are almost invariably followed by better returns, and by extended and more thorough improvements, and thus the work goes on until the whole neighborhood feels the influence of the advent of one progressive farmer among them—whose only teaching may have been that of silently exemplifying in his own practice an improved method of agriculture. In this way, and by the constantly recurring lessons which experience teaches, a better system of cultivation has been in part introduced, and thus also diffused and extended.

The influence of such examples are not confined to those who see them—those who hear or read of them are also influenced. These form the larger portion of the farming community, and here the agricultural newspaper gives its powerful aid to progress. It brings home the practice of the best farmers to thousands of interested readers, and they can but gain hints and suggestions of much value if applied in their own operations. The improvements of one part of the country are diffused over the whole country, and benefit all regions where their application is practicable. Those who contribute to the interest and value of our rural journals are doing a good work—the influence of their example may thus shine into every part, and hasten the progress, and increase the prosperity of our wide-spread country.

INDIAN CORN.

Indian corn is one of the leading crops of our country, and in a pecuniary point of view takes precedence over any other of our cereals. Occupying as it does, a wide range of territory, and adapted as it is, to great differences of climate and length of season, it necessarily exhibits an almost endless variety. Some of the hard flinty sorts, are grown almost to the northern limits of our country; consequently the plant there, is dwarfed in its growth, and the grain matures early. Every degree or two of latitude south from this northern limit, exhibits an enlarged growth of foliage, stalk, ear, cob and grain. The farther south we go, the longer the season required for maturing the crop. Corn raised in New-Hampshire, and planted in Maryland, will ripen many weeks in advance of the varieties usually grown there. While the corn raised there, will not mature in the first named State.

The past season (1859) was comparatively cold, and unusually frosty; therefore was unfavorable for the corn crop overn large portions of New-England, and other of the Northern States, while in the Middle, the South, and Southwestern States, (with some trifling exceptions,) the corn crop is said to be unusually large.

In the New-England States, the corn crop in 1816 was nearly a failure, in consequence of the low temperature of that season. In 1836, in consequence of a cold summer, a very large part of the corn failed to ripen in the Northern States. In many sections of these States, the past season much of the corn failed to mature, but it averaged much better than the crop of 1836.

In portions of New-England the past year, much of the corn planted on the intervale, and other low-lying land, suffered greatly by the frosts of early June, and again by those of the middle of September. But on more elevated lands, with good culture and early maturing varieties, the corn was generally sound, and the yield was nearly an average with that of preceding years.

The above shows the importance of a proper selection of soil, abundant manuring, and a thorough preparation of the land before planting the seed. Especial attention will be required this year in selecting the *seed corn*. In 1857 the farmers in some of the western States suffered immense

losses by planting seed that failed to germinate. The past season, millions were lost by planting late ripening varieties.

We may not again be visited with such an untoward season for years to come; yet, as no one can accurately predict the temperature of the coming summer, it will be wisdom in us to be prepared for the worst. The loss of a corn crop to the farmer is usually a serious one, yet this loss can frequently be guarded against by a change of seed. In making a change of seed corn it is the safest way for the farmer to procure seed north of his location. The farther north, the earlier it will mature, and, as a general rule, the smaller the growth. But then, ten bushels of ears of well ripened Canada corn is worth more for "man or beast" than twice that amount of large frost-bitten, soft ears. We pen these suggestions for the benefit of our readers in those sections of our country where the corn failed to properly mature the past season. There will be ample time between this and planting season, for farmers to procure seed grown far north of them, if they so choose. But if they do not see the necessity of it, we would suggest to them the importance of soon selecting from that of their own raising, and carefully ascertain whether it will all or only a part of it vegetate; and then have the requisite supply of seed ready for use whenever the temperature of the season and soil will justify the committal of the seed to the bosom of mother earth.

Some farmers are always in a great hurry to get their corn planted "extra early," and they sometimes "miss it" by so doing. In the *North American Review* for October is an article, from which we make the following extract, having a direct bearing upon this point—it says:

"No plant can germinate without a certain degree of *heat*. Each plant, however, has its own peculiar range of temperature. Wheat will not germinate when the soil is below forty-five degrees Farenheit, or above ninety-five degrees. Corn requires ten degrees more heat than wheat. Should it be planted, therefore, when the soil does not indicate fifty-five degrees at least, its starchy portions, if the weather continue wet and cold for a week or two, will be decomposed and diffused, wholly, or in part, through the soil, so that when the warmth becomes sufficient to quicken the germ into activity, the plumule, failing to find the proper nourishment at its root, does not appear at all, or comes up a puny starvling, and after living a few weeks 'at a poor, dying rate,' expires like the wretched cardinal, and "makes no sign."

This principle is universal in its application to the germinating processes of the vegetable kingdom. The man therefore who puts his seed into the ground without any reference to its temperature, is liable both to lose his time and "beg in harvest."

SPRING PIGS FOR MAKING PORK.

That pork may be made most profitably of spring pigs, kept growing as rapidly as consistent with health until fall or early winter, has been shown by many successful experiments. Yet nothing is more common among farmers than to winter over pigs, weighing in the fall about one hundred pounds, expecting to make hogs when fattened a year later, weighing in the neighborhood of three hundred and fifty pounds. A year's care and keeping is given to very small advantage over pigs properly fed for less than half the time.

March pigs of a good breed, well kept and learned to eat while with the sow, then taken away at two months old and fed all they will profitably consume, will make "three hundred hogs," by the last of November. There have been frequent instances of a gain of one and a quarter lbs. a day, and even more. "Pigs, recently from the mother," says a writer on this topic, "may safely and profitably be fed frequently. The digestive powers are most active in the *young* animal, as a matter of theory even; in practice it is found emphatically so; and if the animal is fed always, the growth is never stunted, and the animal does about all it was made to do, in a short time." An instance is given where two pigs fed from two months old, three, and often four times a day, with Indian meal and skim milk, weighed when slaughtered, at seven months old, three hundred and fifteen pounds.

An example of the cost and results of fattening shoats by feeding through the summer, met our eye sometime since, in the N. E. Farmer. A pig was bought of a drover, weighing at the time 120 pounds, and costing $10.20. He was kept nearly nine months, consuming meanwhile, besides slops from the house, $25 worth mostly of corn-meal, and his dressed weight was 353 pounds. Taking first cost and expense of food purchased only into account, the pork cost ten cents per pound, though the cost of the meal would not average above $1.00 per bushel. The time spent in feeding, and the value of the slops, may have been remunerated by the manure, but we think manure could be made less expensively by fattening spring pigs; at least less time would be required in the process.

SUCKERS IN APPLE ORCHARDS.

Eds. Co. Gent.—Can you or some of your contributors, give me an effectual remedy for what I suppose is a disease among my apple trees, to wit, the sending up of hundreds of sprouts from and around the roots of the trees? Where I have cut them off two or three times during the past year, it seems only to increase their number five-fold.

Lexington, Mo. J. C.

The remark is often made, that the suckers of apple trees, made use of as stocks to graft in, are apt to produce suckers. This is true only so far as those particular trees which sucker most abundantly are apt to be selected from which to obtain the supply, and of course the new stocks have the same peculiarity. Suckers should never be used for stocks; but if they are, they should be taken from trees producing the fewest.

To clear suckers from orchard trees, they should not be *cut* off, for new shoots will spring from every stub left. The right way is to keep the ground smooth, mellow, and clean; and then about the middle season of growth, or during the first half of summer, put on thick cowhide boots, and stout buckskin mittens; seize one sucker at a time, placing the boot upon it close to the tree, give a sudden jerk with the hands, and it will be torn out root and branch, leaving no stump. An occasional repetition of this process will keep the orchard clear. Suckers always give a slovenly appearance to an orchard, and should not be suffered to grow. They also favor the depredations of the borer.

Receipt for Crullers.

Two teacups sugar—two teacups sweet milk—two large tablespoonfuls of butter—two eggs—two large teaspoonfuls of soda—four do. of cream tartar—a teaspoonful of essence lemon. L. S. G.

I feel indebted to The Cultivator, for many valuable suggestions and recipes, and in return I should like to give a simple one that has never failed:—

To Cure a Cow of a Caked Bag.—Half bushel of carrots a day for two or three days, and *milk clean*.

E. H. Mulford.

NEW-YORK STATE AG. SOCIETY.

The annual meeting of this Society was held in this city on the 8th and 9th of February. It met in the Assembly Chamber at 12 o'clock on the 8th—Hon. A. B. CONGER, President, in the Chair—B. P. JOHNSON, Sec'y.

The Treasurer, L. H. TUCKER, read his annual report, of which we present the following brief abstract:

RECEIPTS OF THE YEAR.

Cash on hand from last account,	$ 2,650.93
Life Memberships during the year,	657.00
Other Memberships do.	75.00
Use of Tent, 1858,	16.00
State Appropriation for Dr. Fitch,	1,000.00
From Local Committee for Albany Fair Expenses,	1,200.00
Receipts of Albany Fair,	18,111.33
State Appropriation,	700.00
Total,	$24,410.26

EXPENDITURES OF THE YEAR.

Premiums at Winter Meeting,	$ 691.00	
Expenses do.	70.56	
Salaries and Travelling Expenses, (including Dr. Asa Fitch,)	3,779.71	
Library and Museum Expenses,	181.10	
Premiums, &c., on account of Previous Fairs,	547.14	
Postage Account,	155.93	
Incidental Expenses,	175.81	
Printing, Advertising and Stationery,	837.90	
Expenses of Albany Fair,	5,969.84	
Premiums, &c., Albany Fair,	6,115.20	
Survey of Onondaga County,	200.00	
Total,	$18,724.19	
Cash on hand,	5,686.07	
		$24,410.26

*** The balance on hand, however, is subject to a still unadjusted claim on the part of the Albany Local Committee.

The customary Annual Report from the Executive Committee was read by the Corresponding Secretary, Col. B. P. JOHNSON. After mentioning that the past year has been one of unusual Agricultural interest, not only from the success of the State, County, and Town Agricultural Fairs that have taken place, but also as in some respects quite a peculiar season—attention was directed to the encouraging remarks contained in the Governor's Message, also to the commendation he expressed of the Agricultural College at Ovid. The survey of Onondaga Co., just completed by Hon. GEO. GEDDES was highly spoken of. The fact was mentioned that the wheat crop of the past year was an unusually good one, showing how important it is to its rescue from the ravages of the midge, that it should be brought forward as early in the season as possible. The importance of Agricultural Statistics was next referred to; the extent of our dairy interests considered; an allusion given to the use of steam power in farming; an early catalogue of the Agricultural Museum partially promised, (which would be a most convenient and valuable matter for every visitor.) The circulation of our Transactions in exchange for those of other bodies, has shown that they are held in high esteem, and has been the means of spreading the knowledge of our implements more widely; and the hope was expressed, to which we may here call particular attention, that our citizens would prepare themselves to be well represented at the World's Fair promised in London in 1862. The subjects next treated were the value of Dr. FITCH's investigations; the system of visiting the farms entered for the Society's Premiums; and, lastly the general character of the last Exhibition in this city. We were very glad to notice, in addition to the above, that the Report contained some very just observations upon what is really a great desideratum whenever the Society is able to accomplish it, either through its own resources or with the assistance of the State, viz: the employment of an accomplished chemist to pursue his investigations under its directions, as those of Dr. FITCH are now carried on in Entomology; and a complimentary, but well deserved allusion was made in passing to the services performed for the Agriculture of Connecticut by Prof. S. W. JOHNSON, under the auspices of the Society of that State.

With the Report of the Executive Committee, there was embodied the report and resolutions offered by Messrs. KELLY, PETERS, JOHNSON, WAINWRIGHT and CHEEVER, the committee to whom was referred the duty of presenting officially an announcement of the death, during December last, of three valued members and late officers of the Society. This was read by Mr. BOGART, at the request of the Chair, and conveys a just and graceful tribute to their memory, which will appear in the next volume of the Transactions, and we make room below for the resolutions appended and previously passed by the Board:

Resolved—That in the death of Benjamin B. Kirtland, Joel Turrill and Anthony Van Bergen, the New-York State Agricultural Society has sustained the loss of three of its oldest associates and warmest friends—the cause of agriculture, three of its most devoted and intelligent diciples, and the christian community some of its most exemplary and respected members.

While as individuals we mourn the departure of those who have been endeared to us by long companionship, and whose intercourse with us has been marked throughout by kind feeling, by christian courtesy, and by cordial sympathy in all the objects which as farmers we have had at heart; as a Board, we deplore the loss of those whose valued labors have been associated with every important enterprise of this Society, and whose example as liberal minded, intelligent farmers was so well calculated to inspire all engaged in that pursuit with higher aspirations, and with greater love for their calling.

Resolved—That this Report and the accompanying resolutions be entered at length on the minutes of this Board, and be printed in the Transactions of the Society.

Resolved—That a copy of this report and resolutions be sent by the Secretary under the seal of this Society to the family of each of the deceased, with the assurance of the sincere sympathy which the members of this Board severally feel for them in their affliction.

On motion of Gov. KING, the report and resolutions were adopted.

A letter was read from citizens of Elmira, applying in behalf of that place as the location of the next Show, and offering to meet in all respects the Society's usual requirements. The committee of twenty-four then withdrew for consultation, and after a brief and harmonious session, returned with a report reccommending ELMIRA as the location of this year's Fair, and proposing for election the following officers, who were duly balloted for and unanimously chosen.

PRESIDENT—BENJ. F. HUNTINGTON, Oneida county.

VICE-PRESIDENTS.

First District—JOHN JAY of Westchester county.
Second—CHARLES S. WAINWRIGHT of Duchess.
Third—HERMAN WENDELL of Albany.
Fourth—CALVIN J. HULBURD of St. Lawrence.
Fifth—JOHN BUTTERFIELD of Oneida.
Sixth—FRANCIS M. ROTCH of Otsego.
Seventh—JAMES O. SHELDON of Ontario.
Eighth—T. C. PETERS of Genesee.
Cor. Secretary—B. P. JOHNSON of Albany.
Rec. Secretary—ERASTUS CORNING, Jr., Albany.
Treasurer—LUTHER H. TUCKER of Albany.
Executive Committee—Hon. A. B. Dickinson of Steuben; L. Chandler Ball of Rensselaer; Chas. P. Wood of Cayuga; Ezra Cornell of Tompkins; and Samuel T. Thorne of Duchess.

MANURES FOR GRASS LANDS.

The Wednesday evening meeting of the Society, held in the Assembly Chamber, was attended by a very large audience, among whom, as well as in the morning, were to be recognized many of the oldest and best known members of the Society, and several of the most accomplished agriculturists of the state. After the President, Mr. Conger, had taken his seat, a paper was read upon the use of Manures in the Fertilization of Grass Lands, by Mr. J. Stanton Gould of Columbia.

Dr. Asa Fitch followed with an interesting paper on the Curculio and Black Knot, a brief summary of which we reserve for our Horticultural Department another week. He was followed by the passage of a resolution, on motion of Hon. T. C. PETERS, requesting the Legislature to continue their customary appropriation in behalf the important investigations Dr. Fitch has been several years engaged in carrying on, under the auspices of the Society.

THE EXHIBITION AT THE SOCIETY'S ROOMS.

The Show on the 9th was a good one, and the quality of the articles said to be unusually fine. There were 147 plates of winter fruit, 46 of which were winter pears chiefly from the grounds of Ellwanger & Barry, in excellent condition and very attractive in appearance.

The apples included very large specimens of the Fameuse and the King of Pippins, while the King of Tompkins, Swaar, Lyman's Pumpkin Sweet, and Twenty-Ounce, were fine.

A large quantity of Grain was on exhibition, and of a very good quality, full and heavy. A large dressed Hog, at the head of the hall, was shown by William Richardson, weighing 529 lbs., of the Yorkshire breed. A fine carcase of mutton weighing 126 lbs., was exhibited by Messrs. Charles & Van Meter of Center Market. There were forty-three firkins of Butter and twelve boxes of Cheese. The display of dressed poultry was not large. There were thirty-five plates of Potatoes. A Churn was

brought forward by T. A. Jebb of Buffalo, the Patentee, called the "Telegraph Churn," which was highly recommended, and attracted much attention from the favorable results of several trials made at the rooms during the day.

The following are the awards of the several committees whose reports were submitted during the day:

FARMS, &c.

Grain—First premium, Lewis Sherrill, Greenville, Greene Co.... $50
Dairy—First premium, Hiram Mills, Martinsburg, Lewis Co.... 50
Draining—Best experiment, W. T. & E. Smith, Geneva, (83 acres,) 20
T. C. Maxwell & Bro., Geneva, special, (30 acres,)..... S. Medal.
Fertilizers for Indian Corn, W. P. Ottley, Phelps, Ontario Co.... $50
Irrigation of Land, C. S. Kiersted, Kingston, Ulster Co.,..... 20
Prepared Grasses and Herbage, Mrs. J. T. Van Namee, Pittstown, Rensselaer Co., (97 varieties,)..... 15
Grain and Seeds—Mrs. Henry Wier, Johnsonville, Rens. Co., 35 varieties Grain and Seed bottled and 17 do. stalk,..... 10

FIELD CROPS.

Best crop of Spring Wheat, C. W. Eells, Westmoreland, 68 48-60 bush., two acres,..... $15
Best crop Spring Barley, Hiram Mills, Martinsburgh, 122 9-48 bush., two acres,..... 15
Best crop Rye, C. L. Kiersted, Kingston, 302 bushels, 8 35-100 acres, 15
Best crop Oats, C. L. Kiersted, Kingston, 213 bushels, on two acres, 15
2d best crop of Oats, W. H. Slingerland, Albany Co., 618½ bushels by measure and 657¼ by weight, 6½ acres,..... 10
Best crop Buckwheat, C. L. Kiersted, Kingston, 35½ bush., one acre,..... 8
Best Crop Peas—E. W. Bushnell, Hillsdale, 40½ bush., 1¼ acres, .. $8
2d do., John Potter, Marcy,..... 5
3d do., Ira R. Peck, East Bloomfield,..... Trans.
Potatoes—Best crop, E. S. Hayward, Rochester, 305 bush., 1 acre, . $8
Ruta Bagas—Best crop, Hiram Olmstead, Walton, 807 bush., 82 rods, 8
Carrots—Best crop, E. S. Hayward, Rochester, 47-100 acre, 303 bush., 8
2d do., Hiram Olmstead, Walton, 42 rods, 277 bush..... 5
3d do., A. Gurnee, Watertown, 1-5th acre, 195 bush., ... Trans.
Discretionary—Best crop Grass, C. L. Kiersted, Kingston, ... Trans.
Flax—Best crop, M. C. Snyder, Rensselaer Co.,..... $15
2d do., Henry Wier, Rensselaer Co.,..... 10

GRAINS AND SEEDS.

Winter Wheat—Oliver J. Tillson, New Paltz, 60 lbs..... $2
Spring Wheat—Best, C. W. Eells, Westmoreland, 63 lbs., ... 3
2d do., W. P. Coonradt, Brunswick, Rens. Co., 62 lbs..... 2
3d do., A. E. Van Allen, East Greenbush, 62 lbs,..... 1
Rye—Best, O. J. Tillson, New Paltz, 59 lbs.,..... 3
2d do., E. W. Bushnell, Hillsdale, 58 lbs..... 2
3d do., W. P. Coonradt, Brunswick, 56 lbs..... 1
Barley, 2-rowed—Best, H. Mills, Martinsburgh, 50 lbs..... 3
2d do., Norman Gowdy, Lowville, 49 lbs..... 2
Oats—Best, C. W. Eells, Westmoreland, 42 lbs., ... 3
2d do., George Cary, Bethlehem, 42 lbs..... 2
3d do., Henry Wier, Johnsville, 40 lbs..... 1
Corn, yellow—Best, E. S. Elting, New Paltz, 61 lbs..... 3
2d do., Wm. Newcomb, Rensselaer Co., 60 lbs..... 2
3d do., W. P. Coonradt, Rensselaer Co., 61 lbs..... 1
Corn, White—Best, Henry Wier, Rens. Co., 58 lbs..... 3
Peas—Best, Henry Smith, Lowville, 62 lbs..... 3
2d do., Norman Gowdy, Lowville, 61 lbs..... 2
3d do., E. W. Bushnell, Hillsdale, Col. Co., 62 lbs..... 1
Beans, white—Best, W. P. Coonradt, Rens. Co., 64 lbs..... 3
2d do., O. Howland, Auburn, 63 lbs., ... 2
3d do., Henry Wier, Rensselaer Co., 61 lbs., ... 1
Flax Seed—Best, Henry Wier, (red flax,) 53 lbs., ... 3
2d do., Henry Wier, (white,) 52 lbs., ... 2
3d do., Wm. Newcomb, Rensselaer Co., (red,) 50 lbs., ... 1
Buckwheat—Best, O. J. Tillson, New Paltz, 52 lbs,..... 3
2d do., Wm. P. Coonradt, 52 lbs..... 2
3d do., A. E. Van Allen, East Greenbush, 51 lbs., ... 1

DISCRETIONARY.

Corn in the ear, D. W. C. DeForest, Rensselaer Co.,..... Trans.
do. W. P. Ottley, Ontario Co., ... Trans.
E. S. Elting, New Paltz, Rhode Island Corn in ear,..... S. S. M.
W. P. Coonradt, Brunswick Sweet Corn,..... Trans.
Samuel Cheever, Waterford, 26 varieties of Potatoes, raised from seed furnished by C. E. Goodrich, Utica, the fifth year from planting, special premium recommended.
B. N. Huntington, Rome, exhibited nine varieties of Potatoes, Trans.
W. P. Ottley, Phelps, some fine specimens of Chilian Potatoes, Trans.
D. A. Buckley, Williamstown, Mass., five samples of early and late Potatoes,..... Trans.
Wm. A. Gurnee, Watertown, Carrots, ... Trans.

BUTTER.

Best 3 tubs, Elisha Crofoot, Turin, Lewis Co..... $15
2d do., Hiram Mills, Martinsburgh, Lewis Co 10
3d do., F. B. Rugg, Leyden, Lewis Co..... 5
4th do., Mrs. P. Lathy, Phelps, Ontario Co..... Trans.

Best three tubs made in June, August and November.

Best, F. B. Rugg, Leyden, Lewis Co..... $15
2d do., Elisha Crofoot, Turin, Lewis Co..... 10
3d do., L. L. French, Warren, Herkimer Co., ... Trans.

Winter Butter.

Best sample, R. H. Wands, College Farm, Ovid, Seneca Co..... $5
2d do., Sanford Coe, Constableville, Lewis Co..... 3
3d do., N. Gowdy, Lowville, Lewis Co,..... Trans.

DISCRETIONARY.

Mrs. Harilla Winchell, Morehouse, for the best specimen of Butter, from Hamilton Co..... Trans. and Fruit Book.
Miss Jane E. Mills, Martinsburgh, Lewis Co., handsome specimen Butter,.....

CHEESE.

Best 3 Cheese, Norman Gowdy, Lowville, Lewis Co.,..... $15
2d do., E. F. Carter, Le Ray, Jefferson Co..... 10
3d do., Hiram Mills, Martinsburgh, Lewis Co..... 5
4th do., Theron Van Auken, Phelps, Ontario Co.,..... Trans.

DISCRETIONARY.

R. H. Wands, New-York Ag. College Farm, Ovid,..... $5

FRUIT.

Pears—Best Collection, Ellwanger & Barry, Rochester, Dip. & Medal.
2d do., E. Dorr, Albany,..... Medal.
Apples—Best 20 varieties, Ellwanger & Barry,..... Dip. and $4
16 do., W. H. Slingerland, Albany,..... Dip. and 3
2d do., W. P. Ottley, Phelps,..... copy of Barry.
Best dish, H. C. DeForest, Rensselaer Co.,..... Medal.
2d do., Cornelius Chase, Columbia Co., ... vol. of Trans.
Grapes—Best Isabella and Catawba, R. P. Wiles, Albany, vol. Thomas.
Thomas Evans, Watkins, Fruit Picker, ... S. S. M.

WINES.

Best Isabella, Dr. O. F. Presberry, Buffalo, ... copy of Downing.
Currant, Ellwanger & Barry, Rochester,..... do.
Elderberry, A. F. Chatfield, Albany, ... do.
Pure Cider, O. Howland, Auburn,..... copy of Thomas.
Maple Molasses, Hiram Mills, Martinsburgh,..... vol. of Trans.
Preserved Strawberries, P. Myers, Bethlehem,..... Thomas.

MISCELLANEOUS.

T. A. Jebb, Buffalo, Patent Telegraph Churn, manufactured by R. D. Gilbert, Buffalo,..... Dip.
Wm. Richardson, Albany, fat Hog, 529 lbs,..... S. Medal.
W. P. Ottley, Phelps, very fine Poultry,..... S. S. M.
O. Howland, Auburn, Poultry,..... Trans.
Walter A. Wood, Hoosick Falls, Rensselaer Co., model Wood's Patent Mower,.....
S. E. & M. P. Jackson, Boonville, Oneida Co., model of Mowing Machine, with improvements on side draft,..... vol. of Trans.
T. K. Van Zandt, Albany, painting of Bull "Neptune," owned by Hurst, Bullock & Slingerland,..... Dip.

INFORMAL MEETING FOR DISCUSSION.

A meeting was held in the Society's Lecture Room, on Thursday, Chancellor McCOUN presiding, for the purpose of informal discussion. Some notes of the proceedings, will hereafter appear in our columns.

ADDRESSES FROM PRESIDENTS CONGER AND HUNTINGTON AND OTHERS.

In the evening, President CONGER called the meeting to order at half-past seven. After the reading by Secretary Johnson of reports awarding the prizes as above given, Mr. Conger proceeded to address the Society, reviewing the history of that body and preceding organizations in this State devoted to the promotion of Agriculture; expressing some gratification at our present position; suggesting one or two precautions in the management of our future exhibitions, and intimating that the railroad companies would hereafter issue excursion tickets for them. Many other points of practical and scientific nature were briefly referred to, and, in concluding, Mr. CONGER introduced to the audience his successor in office, Hon. B. N. HUNTINGTON of Oneida.

The President elect thanked the Society for the honor conferred upon him, in a few well chosen remarks. A vote of thanks was passed unanimously to the retiring President, Mr. CONGER, for the able manner in which he had performed the duties of the office during the past year, and for his instructive address, a copy of which was requested for publication. Ex-Governor KING then brought forward the subject of the Agricultural College, earnestly impressing upon the company his sense of its high character and importance, and calling out Major PATRICK, the President of the Institution. Major P. spoke of the necessity of a higher order of agricultural education than we had hitherto received, and thought a better system of culture was called for here, since the fertility of her soils was enabling the West to under sell us in all the markets of the world.

Agriculture was of too great concern to be suffered to shift for itself in the matter of education and the preparation required for successful practice. It was impossible to calculate the influence of one good farmer upon the agriculture of his region. He said John Johnston had told him (he was sorry he was not present to speak himself,) that the value of real estate in Seneca county had increased one-tenth throughout the county, under the influence of the exertions of John Delafield. Mr. Patrick alluded to the wants of the Institution to which he had been called, and said $81,000 had been expended in its establishment, and some $20,000 more were required—he referred to the report on the subject, for information in regard to it. The institution would probably be ready for pupils about the 1st of April. Enough applications had been received during the first 20 days of the month past, to compose the first class. He urged the propriety of the farmers present bringing the subject before the people at large. Scarce any of our prosperous farmers but could aid materially by money or otherwise, in placing the institution upon a solid foundation, and he was sure when once established it would be self-sustaining.

A resolution was offered by Chancellor McCOUN welcoming Major PATRICK among the farmers of the state, whenever he should present before them the claims of the institution over which he presided. Some other unimportant business was transacted, and then the Society adjourned.

Cost of Draining---Thomas' Drain Plow.

MESSRS. EDS.—Having last season put down a few thousand tile by the aid of Thomas' drain plow, at a cost very much less than I had ever been able to do it at before, perhaps it may be of some service to those of your readers who, like myself, are farmers of wet clays, to lay before them a short statement of the way in which the work was done, and comparative tables of the cost of sinking ditches by the spade and by the plow.

Allow me in the first place to say, that my farm belongs to the stiffest class of fine yellow clays, with no variation in the subsoil, save that the deeper you go the stiffer it becomes. The greater part of it too, lies on almost a dead level, with numerous shallow basins of a quarter or half an acre in extent, a few inches lower than the surrounding surface; while the whole seems to have been formerly plowed without any reference to the fall of the dead furrows corresponding to the lay of the land. I merely mention this, to show that there are but few farms on which drains cannot be laid as cheaply as on my own.

In the month of May last, I laid out on a piece of six acres, 493 rods of tile-drains, 25 feet apart. There was already a large stone drain 3½ feet deep, running lengthways through the piece, into which the new ones were to empty. These were all opened to a depth of about 10 inches with a common plow, by a pair of horses and two men in little over half a day. (For this labor-saving idea I am indebted to my old friend, Mr. Robt. Swan of Geneva.) With the same plow, set as deep as possible, we then threw two furrows together in the bottom of the ditch, and when this loose earth was thrown out we already had a depth of from 15 to 18 inches. With Thomas' draining plow we had then no difficulty in so loosening the earth for another 15 inches, (giving us a total depth of 33 inches or a little over,) that it was easily thrown out with a common shovel. It required three separate plowings to get it to this depth—about five inches of earth being loosened each time. One man and a pair of horses, straddling the ditch, worked it with ease; passing it through the ditch four times for each plowing, so as to get the earth thoroughly loosened. The final spit, grading the fall, was removed with a narrow draining-spade and a scoop. The tile were covered with inverted sods, and the earth, thrown out equally on both sides, was all returned with a common plow.

The past spring here was very wet, so that several days we could not use the draining plow, for fear of the horses slipping into the ditch, and were obliged to open a number of rods in the old way, with spades. It also prevented my finishing the job at that time, leaving about a quarter of it until the end of last month, when the days were very short. The land was so nearly level that it required great care and a good deal of time to grade the bottom properly; but we got most of the tile down to a depth of three feet.

Let us now compare the cost of these drains with that of a piece done a few years ago entirely by the spade and shovel, on exactly similar land.

COST OF LAYING 625 RODS OF TILE WITH SPADE AND SHOVEL.

To 117½ days sinking ditches, at 87½ cts.	$102.81
17 do. laying tile and covering with sod,	14.88
32¾ do. filling,	28.65
	$146.34

Or nearly 23½ cents a rod.

COST OF LAYING 493 RODS OF TILE WITH PLOW AND SHOVEL.

To ¾ day, horse team and extra driver, marking out, at $3.75,	$2.50
3 do. do. plowing earth loose, at $2.87½,	8.62
45 days shovelling out loosened earth, at 87½ cts.	39.38
13 do. laying tile, and covering with sods, at 87½ cts.	11.37
1¼ do. horse team filling, at $2.87½,	3.60
	$65.47

Or nearly 13½ cents a rod.

I have not included the tile in either case, as the cost of them per rod would not differ. I have also charged full price for the horse labor, which should be done in all farm accounts, though in this case they would have been standing idly in the stable if they had not been used here. If we deduct the charge for team, it makes the cost 11½ cts. a rod.

It will be thus seen, that by using the plow instead of spades, I was able to get my ditches sunk and refilled for about one-half, though working under several disadvantages. I am confident that under favorable circumstances, three feet drains can be sunk with the plow for *eight cents a rod*, while I find some of my neighbors paying the Albany contractors 25 cts. Now I feel that there is some hope of my being able to drain my land at a cost that will make it pay, as soon as opposition brings the price of tile down to anything like a reasonable sum—say one-half of what they are now asking in Albany.

I add a table to show the number of rods of drains to the acre in thorough drainage, at various widths, thinking it may be useful to some of your readers. No allowance is made for the mains, for if the lateral drains enter them from both sides, they will be entirely extra, and it will be best to consider them so in making calculations as to the cost of draining any piece of land. I also add the number of tile required to the acre, allowing 16 to a rod, which I have found to be about right; and a third column, showing the cost per acre, laid about three feet deep, taking my operations of the past summer as a basis for the labor account, and tile at $10 a thousand, the cash price of two-inch sole-tile at Albany. Of course this last column can only be considered as a general guide, even when the expense of transportation is added to the first cost of the tile; but it may be of service to some farmers who intend trying underdraining this year.

Width of interval between drains.	No. rods to the acre.	No. tile to the acre.	Cost per acre. 13½ & 16—say 30 cts.
20 feet,	132	2,112	$39.60
25 do.	105⅓	1,688	31.65
30 do.	88	1,408	26.40
40 do.	66	1,056	19.80
50 do.	52¾	844	15.82½
60 do.	44	704	13.20

I doubt if any thing at intervals greater than 60 feet can be called thorough drainage, so I have not carried my calculation farther. W. C. S.

[For the Country Gentleman and Cultivator.]

SHALL WE BUY THE CATTLE WE FEED?

EDS. CO. GENT.—I thank your Geneva correspondent, JOHN JOHNSTON, for his prompt response to my inquiry on cattle feeding. I thank him also for the valuable instruction he has given in that important branch of farm economy. I find I was correct in my former communication, when I remarked that Mr. Johnston was a much more successful feeder than I was; but I did not expect to be so badly beaten as I now find myself to be.

Last season I sold my four-year old steers at $60, and thought I was doing pretty well. This year I have as good, but the price ruling low I could not now get as much for them. Mr. Johnston, at 22 to 24 months old, by his system, gets from $47 to $60, a gain of two years upon my system of feeding.

This comparison between Mr. Johnston and myself, reminds me of a very pointed and practical illustration of the value of Agricultural Fairs, made in an address before one of our Maryland Societies, some years ago, by Prof. Benjamin Hallowell, late President of the Maryland Agricultural College—a man of wisdom and learning, and devoted to rural life and agricultural improvement. Mr. Hallowell, on the occasion alluded to, was invited to deliver an address before the Ag. Society in the county in which he resided. Feeling, doubtless, a little ambitious from the position he was to occupy, to have something attractive from his own farm to exhibit, he went among his stock to make his selection; but he found nothing which so completely filled his beau ideal of perfection as his half-blood Merino ram. This ram was forthwith ordered to the Fair, and with the just pride of a farmer, friend Hallowell soon invited his friends to an examination of his beautiful sheep—when to his astonishment and surprise he found his favorite ram, the pride of his flock, completely and overwhelmingly eclipsed by a pair of noble Cotswolds, exhibited by Horatio Trundle, Esq., from another part of the county, the existence of which he, Mr. H., was totally ignorant of. In his address the learned Professor turned this circumstance to very good account. In speaking of the value and importance of Agricultural Fairs, he frankly

confessed the pride with which he had entered his aforesaid ram for the prize, which he confidently expected to win until he saw the far superior sheep exhibited by his friend Trundle—and but for this exhibition, he not only should have remained ignorant that there was such sheep in the county as his friend Trundle had exhibited, but that he should have continued himself under the delusion with which he left home, that he had himself the finest.

Just so it is in raising and feeding cattle; but for the medium of your valuable paper, and the interesting and instructive communication of Mr. Johnston, I should have remained under the delusion that I was doing pretty well in raising and selling four year old steers at $60 per head. I now find they can be sold for as much money at 2 years old, by Mr. Johnston's superior management.

Something, however, is due to difference in circumstances. In a rapid railroad excursion to the north some years ago, I was struck with the beauty, fertility and high state of cultivation of the land bordering on Seneca lake, on which I believe the town of Geneva is situated.

I am afflicted with a larger quantity of old worn out land (as we describe it in the south) than I can at present bring under the hand of improvement. The only profitable way of using such land, is to appropriate it to pasturage for sheep and young cattle. My practice then is, to winter my calves as Mr. Johnston does—the first winter on clover hay, omitting the meal which he adds to the clover hay—and in the spring turn them on the inferior pasture just described. The second winter they are fed on corn fodder and wheat straw, without grain, and turned again with the sheep on inferior pasture. The third winter fed as the second, and the following spring put on better pasture, which by the fall brings them forward in a condition to be sold as grass fed beef, or fed 2 or 3 barrels of corn, worth from $6 to $9, and generally sold at a much higher price as stall fed beef. In this way I bring my 4 year old steers, at a cost of not over $9 in grain, to an average of $60 per head. Mr. Johnston, by feeding from $15 to $20 worth of oil meal or other grain, sells his two year old steers for $60 per head. His is doubtless nearer the true mercantile principle of turning his capital as rapidly as possible. But my objection heretofore to feeding cattle so young, was a want of maturity, and consequently a disposition to take on and carry to market solid and substantial fat and tallow. Mr. Johnston's system of feeding oil cake, with which I have no experience, will perhaps overcome this objection. He, however, admits that he finds it more profitable to buy 3 and 4 year old cattle to feed; but what then becomes of his calves? Are they sacrificed to the butcher and the epicure? It is against this wasteful and destructive practice that I contend—wasteful, because it destroys in infancy an animal fitted and intended for rapid growth, improvement and maturity—destructive, because it deprives the country of the provision intended by Providence to feed and sustain it. To buy 3 or 4 year old cattle to fatten, requires an active capital constantly on hand to keep up the supply—and renders us dependant on others for what we can ourselves furnish. My plan brings to maturity and full development the tender calf—saves the capital necessary to buy the 3 and 4 year old steers, and renders me independent of the fluctuations of the stock market. Mr. Johnston's system requires tact and judgment in *buying* as well as selling. The system I advocate is better adapted to that large class of farmers who are not so highly gifted in this respect as Mr. Johnston evidently is.

A MARYLAND FARMER.

[For the Country Gentleman and Cultivator.]

To make Hard Soap.

EDS. CO. GENT.—I send you the following recipe, which I wish the readers of your paper to have the benefit of, as it is considered the best of many:

Take 6 lbs. of soda, 6 lbs. of fat, 3 lbs. of lime, and 4 gallons of water. Put the soda, lime and water in the boiler, and boil them. Then take it out in something to settle; then put the fat in the boiler and add the water (leaving the settlings behind.) Boil about half an hour, or until it is thick. Then take it out to cool, when it is ready to cut as is desired.

Highland Home, Pa. E. COPE.

[For the Country Gentleman and Cultivator.]

TREATMENT OF RINGBONE.

MESSRS. EDITORS—In the Country Gentleman of Jan. 12, you say "there is no cure for confirmed ringbone." A few years since, one of my horses was badly ringboned upon both hind feet, and very lame. A friend, upon seeing his lameness, remarked that he could give me a recipe that would surely *cure the lameness, but not remove the bunches.* I tried it as directed, and a permanent cure of the lameness was effected within a month. I was requested *to keep it a secret*, and I will *say nothing about it*, but let the Country Gentleman" *do the talking.* Recipe:

½ pint spirits turpentine.
1 ounce oil oreganum.
1 ounce oil amber.
1 ounce oil of spike.
½ an ounce aqua fortis.

Mix in a bottle, and apply daily (Sundays excepted) with a swab. L. T. M. *Vernon Center, N. Y.*

LARGE OR PEAVINE CLOVER.

We find the following article on this variety of clover, about which there has been considerable inquiry of late, in the Mohawk (Herkimer county) Courier, and it is, we presume, from the pen of the editor of the Ag. Department of that paper:

The large variety of clover, sometimes called "peavine clover," and from being extensively raised for seed in the southern part of this county, known in some parts as "Herkimer clover," has some qualities that commend it to the use of dairymen.

Firstly, its enormous growth. It yields fully double the amount of herbage produced by any other clover or grass we cultivate. It has been objected to by some as being *too large.* Its stems grow very long and large in rich soil, and not being able to support their weight, a considerable portion of them often lie flat upon the ground, and hence become more or less injured. Weight for weight, such hay is not as good as that made from timothy, red top, nor June grass; nor is it as good as from clover that has not fallen down, but still it makes valuable fodder.

I am now keeping part of my cows upon this kind of clover that grew at the rate of six loads to the acre, as large as I could draw on a common hay rigging. It was coarse indeed; but it was well cured, and comes out bright and free from mould or discoloration by heating, and without loss of leaves. The cows eat it readily and with a good relish, consuming even the coarsest stems. They keep in good health and flesh, and are in every respect doing finely upon it. The value of this, like any clover, depends very much upon the manner in which it is cured. When partly dried, its strength is quickly steeped out by a shower of rain; or its leaves lost, and its goodness burnt out by drying too long in the sun; and to be good must be cut when in full blossom.

Secondly. This kind of clover is less liable to injury by drouth than any other, and much less so than the grasses. As soon as it gets a hold in the soil, its large and long roots strike down below the reach of drouth. I have never known it to be effected by the dryest seasons we have had since I commenced cultivating it.

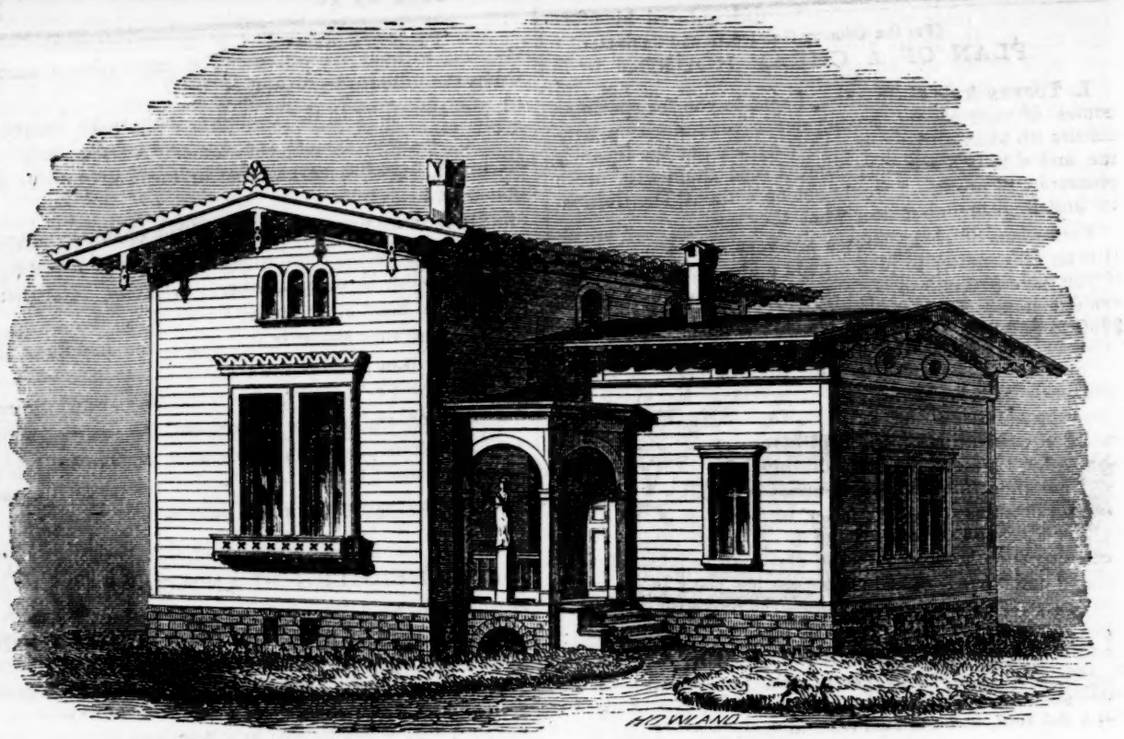
Thirdly. It ripens at the same time with timothy, and hence is better where timothy is to be cultivated with it. The earlier kinds will be greatly injured by standing till timothy is ripe enough to cut; and if cut at its proper season, the timothy will not be full grown.

Fourthly. By ripening slowly, it remains a longer time in a suitable state for cutting.

Fifthly. While through its large leaves it derives most of its support from the air, its large roots extending through the ground loosen and enrich it. The exhaustion of soil for a given value of fodder is much less than with timothy.

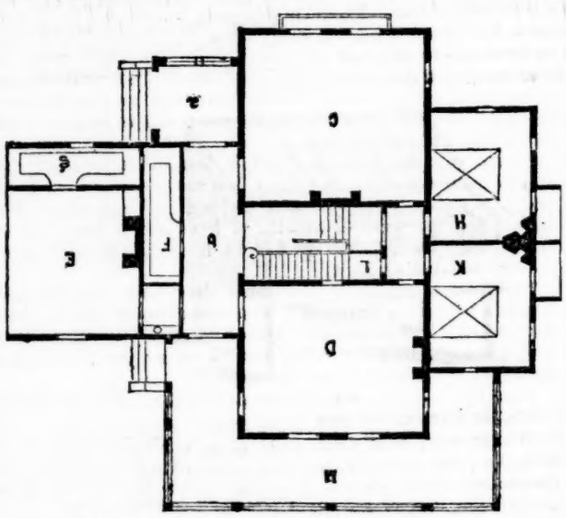
SHARES' HARROW.—This harrow I think is a good implement, but the timber should be made about double as heavy, and of the toughest wood. To make it work properly I had a log weighing between 50 and 100 lbs. put on it. The shank or portions of the metal inserted into the wood, should be made somewhat longer. I never saw any implement put in wheat better. J. R. W.

Albemarle Co., Va.



NEW AMERICAN STYLE OF RURAL ARCHITECTURE.

EDITORS COUNTRY GENTLEMAN—The last example of the new American style, was undoubtedly too expensive a design for a great majority who may have desired to build, or who intend to commence this spring. We intended that example, without any reference to the plan, should represent the general characteristics of the style, and as far as that motive was concerned, a great many, especially gentlemen of refinement and taste, have acknowledged our efforts by adopting designs with the same characteristics. We are endeavoring, as far as our ideas will allow, to produce a style that shall be *national and truly American;* and it lies with the people of both north and south, east and west, to approve of our attempts or not. We desire to submit to their examination, designs with every



variety of plan, hoping by so doing a better judgment can be made, whether we are to satisfy our countrymen as regards a new and National style. We submit a third example—a residence for a small family, that cost $2,500, and shows how plain and how picturesque a country cottage can be designed. To have a high roof, dormer windows, plenty of piazza, tower, or an abundance of ornament, would not make *this* design one iota more beautiful or interesting. Beauty lies in simple, yet characteristic and graceful *forms;* ornament does not add a particle to beauty, unless the simple forms are right and in their proper place. To describe why we inserted a large window in front, three small ones above, and made the entrance porch as it is, &c., would take up too much space.

We will describe the plan briefly, and it must be understood these requirements were given by the owner, and not arranged by us. You enter by an entrance porch *a*, 7 feet square—have a hall *b*, 5 feet wide, affording an uninterrupted draft—staircase hall, 7 feet wide, leading to two bed-rooms, *k* and *h*, with fire-place and closet to each, and to passage between dining-room, D, and parlor, C. The entrance hall has door to parlor, to dining room, and to small passage with wash basin, &c., to kitchen, E. F is a store-room with shelves, and *g* is kitchen pantry, well lighted. M. is veranda, and is on the rear side, we may say, because towards the south—the front faces north, kitchen east. There is a closet, L, under stairs, for dining room. On second floor of main building are two bedrooms and bathroom.

There can be a piazza on front if desired, as well as any other change. Our desire is to represent how this style has conformed to the wishes of those desiring their own arrangement of rooms carried out. In conclusion we will state here, that we shall soon represent the adaptation of the style to brick construction, and we hope this small design will show our intentions, as remarked beforehand.

SAELTZER & VALK, *Architects,*
[See advertisement.] Bible House, Astor Place, New-York.

GRAPE-GROWERS' ASSOCIATION OF CONNECTICUT.—The following are the officers elected at the annual meeting, held at Hartford, Jan. 10:

President—DANIEL S. DEWEY, Hartford.
Vice Presidents—C. S. Middlebrook, Bridgport; E. A. Holcomb, Granby.
Secretary—M. C. Weld, Hartford.
Treasurer—Richard H. Phelps, Windsor.

Some of our readers we doubt not, will be surprised to learn, as we do from statements at this meeting, that 200,000 gallons of wine were made in Connecticut last year, samples of some of which, made *without sugar*, were pronounced at their last State Fair equal to the choicest Rhenish wines. The Diana, Hartford Prolific, Isabella, and Concord, were the kinds of grapes recommended in their order for cultivation in Connecticut. Several kinds of wild grapes were also recommended.

[For the Country Gentleman and Cultivator.]

PLAN OF A CHEAP HOUSE.

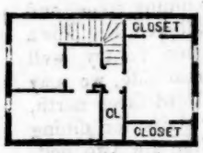
L. Tucker & Son—In 1854, I sent to you for specimen copies of your papers, having never read much on agriculture up to that time; but your papers put the fever in me, and although a factory hand, I read them with much pleasure and profit. I would not be without The Cultivator and Register, no matter what they cost.

Your plans of cheap houses are very interesting to me. It is an easy matter to plan a good and convenient house, if you have $10,000 to lay out. But to plan a good, convenient house, for a family of 4 to 8 persons for from $250 to $500, there's the rub.

I send you a plan that I figured out, that I think is fair for the amount of room given, and the cost of such a building in the style I should recommend. I should build with a flat roof, and perhaps vertical boarding. I put the

Original Plan.

Plan as Improved.



Chamber.

chimney in the center so it will answer for 6 rooms. The chimney for the kitchen I have put in the woodshed, close to the wall, so that there will be no leakage in the roof. I should have a set kettle in the woodshed so as to have hot water for washing, and cooking for the hogs, &c., without interfering with the kitchen. I should have one end of the woodshed furnished for a sink-room and wash-house. Every room in the house but one is lighted from two sides.

If you think this is worth putting in your paper, I want you to find all the fault with it you can, only let the front door alone, as I would so build the portico that I could put sash in in winter, and have open work in summer. The idea of this plan originated with the first cheap plan for Register for 1855. Joseph M. Wade. *Rhode Island.*

We have added a simple perspective view of this house; but instead of having the roof flat, we have given considerable descent to its sides. A cheap or shingle roof will leak badly and rot soon if made flat. A metal roof may be flat, but is costly. A pitch and gravel covering is hardly tested enough yet for dwellings.

We have made but a single alteration in the plan, by removing the stairs from the corner to a more central part of the house, as will be perceived by comparing the two figures. In the original plan, the stairs must be necessarily very steep, from the short space they occupy—only eight feet in length in the sketch furnished by our correspondent; while in the improved design they may be ten feet long without crowding. The improvement accomplishes the following advantages:—

1. In ascending to the chamber, there is no danger of striking the head against the low roof of the story and half house near the eaves, the landing being under the highest part.

2. By landing near the middle of the chamber, a small entry is easily made from which every room is entered, without passing through another. A closet is also furnished at the head of the stairs for bedding, &c.

3. The entrance below is also nearer the middle of the cellar, and not at one remote corner.

4. The closet or pantry between the kitchen and dining-room is larger, and is more convenient.

5. The entrance to the stairs is more convenient, especially from the kitchen, as it is not necessary to pass through the living-room for this purpose.

[For the Country Gentleman and Cultivator.]

SLEIGHT'S PLANT-CASE.

Below you will find a description of a *Plantarium*, made by me nearly two years since, and which I find to work even better than I anticipated; in fact it is all that can be desired as a plant-case, or *parlor hot-bed* for propagation by seeds, cuttings, &c., and does away entirely the necessity of a hot-bed, except for large operations. The boilers, as arranged, will be sufficient to heat an *upright* plant-case, say 3 ft. by 3 ft. or 3 by 4 ft., and six feet high from the top of the stand, and keep the heat up to 70° to 80° in cold weather, when used in a room where fire is kept. The case could be shelved and filled with plants in pots, and the *tray* used for propagating, &c.

It first occurred to me about two years since, while an invalid confined to the house, reading an account of the "*Waltonian Plant-Case*," in the "Horticulturist." It occurred to me that a similar case might be made very cheaply by using *ready-made window-sash*, and that the heat might be applied much more economically and advantageously, than by a *simple boiler* under the tray holding the plants. I therefore made one, on *my plan*, 27 in. wide, and 29 in. deep from front to rear. The front 13 in. high, (outside,)—back 24 in. high, giving an inclination of about 45° from back to front of the top. The top sash is arranged to slide off on either side, or to lift up or off, so as to admit air when necessary.

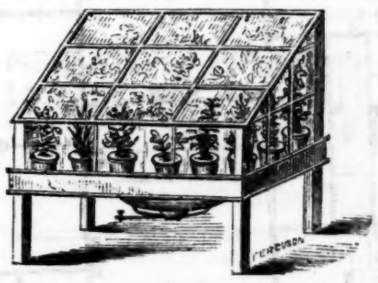


Fig. 1.

The back is formed by two glass doors, opening outward on hinges each side, (but made to fit tight,) so that the plants, &c., can be regulated or removed (tray and all) when necessary. The glass case stands on a frame forming a sort of table, *without top*. The four legs supporting the case, are stiffened by strips 3 in. wide and half inch thick all around *under the top pieces*. The legs can be made high or low, as preferred. The *tray* for holding the plants, &c., in the *case*, should be made of copper or galvanized iron, and made to fit as snugly as will permit, being raised up and drawn out when necessary. The edges, or sides, of the tray are 1½ in. deep, with stout wire around the edge or top, (to stiffen the tray,) and a handle on each side for lifting. When heavy pots are to be put in, a few small iron bars should be laid *across the tray*,

(before putting in the sand,) to support their weight and prevent the tray from getting out of shape.

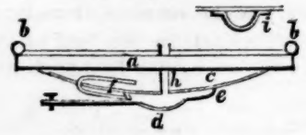


Fig. 2.

In the center of the tray, at *h* in fig. 2, is a half inch tube, about 10 in. high, through which the boilers *c* and *d* are filled with boiling water, and when not in use for that purpose, is covered with a cap to prevent the escape of steam among the plants, and to retain the heat in the boilers; and by this tube the depth of water in boiler *c* can be known at any time. There is also a small tube connecting with the bottom of small boiler *d*, to draw off the water from both boilers by a stop-cock on the left side of the stand.

With the above description, I think most persons would be able to build one. The cases, &c., may be made as large as 3 ft. by 3. ft. or 4 ft., with *inclined tops*, or 4 ft. to 6 ft. high above the stand, with *flat, tight top*, door in the rear, and shelved for *plants in pots*, as a two-wick spirit-lamp will generate sufficient heat (*in a room where fire is kept*,) to keep the thermometer up to 70° to 80°. In moderate weather there is no need of using the lamp, as sufficient heat can be furnished by occasionally filling up anew with boiling water, which can be kept hot a long time, if a *blanket-jacket* is fitted on under the boilers, when the spirit-lamp is not used.

References, Fig. 2—*a*, tray of copper or galvanized iron; *b b*, stout wire handles to lift the tray; *c*, boiler, made circular if the frame is square, or oval if it is oblong, with ¾ inch flange to strengthen it when soldered on the bottom of the tray. It is about two inches deep in the center, and holds about four quarts of water. *d* is a small oval copper boiler, soldered on the bottom of *c*, holding 3 gills—*e*, a small ½ inch tube (section shown at *i*,) an inch and a half long, connecting with the boiler *d* on the right, and soldered fast to the boiler *c*, in which is a small hole which lets the water into this small tube, and fills the small boiler *d*—*f*, a small tube, also connected with the boiler *d* on the *left end*, and passes up close to the convex bottom of *c*, until near the upper edge where it is bent over and enters the boiler *c* through a hole, thence passes down to the bottom of *c*, where the water is discharged, and again enters the boiler *d* through the hole at *e*—thus keeping up a rapid circulation as long as the heat of the spirit lamp is applied.

Boiling water should always be used for filling the boiler *c*.

My case when completed cost me *nine dollars and fifty cents*, and was kept in use all last winter, in a room without any fire, at an east window. HENRY C. SLEIGHT.

Geneseo, Ill., Jan. 12, 1860.

[For the Country Gentleman and Cultivator.]

Why Farming does not Pay Better.

The question is very frequently asked, and I have had it put to me, times without number, during the past season: "*Can you make farming pay?*" I often heard the same question discussed when I was but a small lad; and as a general rule, the decision was in the negative—"*It pays poorly.*"

I received my existence on a farm, and have always labored on a farm; and although I have passed through many very discouraging times for farmers, I never remember of being in circumstances, or of seeing the time when I entertained the idea, that farming does not pay as well as almost any other occupation. I have seen many times when I almost wished that I could exchange farming for some other livelihood, but when all things have been taken into deliberate consideration—when I have estimated the loss and gain, and expenses incurred in carrying on manufactories—when I have gone into lawyer's offices, printer's establishments, editor's rooms, and into publishing houses, and have become in a measure acquainted with the vast amount of business which is constantly on hand; when I have witnessed the toil, the anxiety, the perplexity and constant losses incident in trade and barter—when I have taken a peep at almost every livelihood, and have fairly and impartially compared them all with farming—with honest, hard-working, sunburnt toil, I am induced to exclaim: Give me the farm, with the even, uninterrupted flow of happiness and enjoyment, with a fair competence, all of which every farmer may call his own; for the hot haste and impetuous rush of the care-worn citizens of our large cities and villages, have no charms for me.

I never hear a man affirm, that *farming does not pay*, without thinking—Friend, there's a *leakage* in your boiler, or a *screw loose* in some of your machinery.

Agreeable to my promise, when I was with you in Albany, I will now give you a few brief articles, commencing with the subject at the head of this article.

What would farmers, or any other class of citizens say, were they to go into any of our large manufactories where agricultural implements are made, and see one-fourth of all they had manufactured during the year, thrown aside as worthless—a dead loss—simply because they had been manufactured of unseasoned timber? What would they say, were they to go into some large cotton or woolen factory, and see bale upon bale of cloth mildewed, mouldy and rotten, because the roof of the building was so poor that it would not carry off half the rain? What would sensible people say of a merchant, or bookseller, who would attempt to keep his goods in a building that was so dilapidated and decayed, that he lost a good share of his profits by rats and mice, and water and snow, which rendered his property almost worthless? Now, this is precisely the way thousands of farmers manage; and then whimper and whine, and murmer and complain, that they "work like a dog," and receive but a poor compensation for their labor. There must be a *leakage* somewhere. Let us take a walk out on the farm, and examine the system of management. There is one bad leakage already; farming will not pay well until it is stopped. For thirty, and perhaps forty years, everything that has grown on certain fields has been carted away, and nothing has been returned to the soil; and more than this, the soil has been so wet most of the time, that it was next to impossible for half a crop to grow; but it required just as much plowing, just as much seed, just as much harrowing, and just as much to fence it, as if the land had been well drained and well manured. No man can reasonably expect to make farming pay a reasonable profit, who does not drain his fields that are too wet, and who does not return every few years, to the soil, a good supply of manure, after having taken off several exhausting crops.

There is another very bad leakage on many farms, whose proprietors are ever whining, because farming does not pay better; and I wish I could say that the error is not a common one, but I cannot; for I see more and more of it every year. I refer to cutting ditches through the barnyard, and filling them nearly full of small stone, for the purpose of carrying away the water and the liquid manure in order to make a dry yard. We cannot expect to hear anything else of a farmer, who wastes his liquid manure in this way, but that "farming returns poor pay."

Another bad leakage in farming, which is well calculated to render it a non-paying operation, is the practice of threshing most of the grain, as many farmers are in the habit of doing, in the field; and of allowing the straw to rot down in one place, without ever distributing it again in the form of manure over the fields where it grew. Such a practice is but little better than that in which everything is carried away from the fields, and nothing returned to them in the shape of manure.

When a farmer fails to provide comfortable sheds for all his cattle, and they do not have enough to eat during the season of foddering but lose from one to two hundred pounds of flesh in a few months, which is of very common occurrence, what right have we to expect to hear from him, any testimony that will tend to refute the affirmation that farming does not pay? None at all.

There is a farmer, who strenuously insists that "farming is poor business—it does not half pay." There is certainly a screw loose in his system of management.—His tools and implements are always most miserable apologies for farm implements, and are in very poor order, so that no man is able to perform a job with them in a decent manner. As a sure and certain consequence, he is always behind hand with his farming operations, and he labors hard to accomplish a little; and often loses enough in one job to purchase a set of good tools; but, as he cannot make farming *pay*, he holds on to the old ones, and labors a little harder, and gets along a little slower, and performs his jobs far less completely.

There is another consideration, by no means a trivial one, which is well calculated to bring farming into disrepute, which we meet with almost everywhere; which is a want of *system* in planning the operations of the farm, and in *executing* those plans. If a farmer is not a *thinking* man—if he does not look far ahead into the future, and lay all his plans wisely, and make calculations to appropriate all his time and energies, both of workmen and teams, to the best advantage—if he squanders away his long winter evenings, and rainy days of summer, at the hotel or at other places of public resort, when he ought to be at home, superintending labors that may be performed at one time as well as at another, or be reading agricultural journals and comparing his practices and system of management with those of other *successful* farmers, we need not be disappointed to meet with leakages which will render farming a non-paying business, as long as he follows it in the manner alluded to.

I have not noticed one-half of the reasons, why farming does not pay better than it does, in multitudes of instances; but I trust enough has been said, to set every intelligent, thoughtful farmer to *thinking*, and to induce him to make an effort to shun the rock on which multitudes have split.

The *remedy* for non-paying farming, is a plain and practicable one; and I propose in my next, to show how it may be most effectually and successfully applied.

Lake Ridge, Tomp. Co., N. Y. S. Edwards Todd.

[For the Country Gentleman and Cultivator.]

THE HOG CHOLERA.

Messrs. Editors—Your correspondent in no. 3, does not describe the disease known as hog cholera in this neighborhood. With us it is always accompanied with excessive purging, (succeeding the loss of appetite,) which lasts sometimes a few hours, and then again one or two days, and generally when red blotches appear on the skin, and blood passes from the nose, the the disease has run its course, and will prove fatal very soon.

I had some experience with it in June, 1858. I was feeding corn, and the hogs were running in a wood pasture, and the nearest point to a public road was 80 rods, and further to any neighbor's stock. The purging first attracted my attention in the evening of one day, and 24 hours after, we had buried 8 out of 120, though at the first sight of the disorder we had removed those not showing it. Within three days we lost 25 head, when my attention was directed to an article in a Cincinnati paper, from a physician, recommending some one to try alum as a substance likely to constipate the bowels. This being a cheap remedy, I prepared a bucket full of very strong solution of alum in cold water, and with a rope and slipnoose, a horn with small end sawed off to the hollow part, proceeded to dose all I could find affected. With the rope behind the tusk, we could keep the mouth up, and by shaking could compel the animal to swallow the drench poured through the horn. Out of 23 we drenched, only five died, though three were in the last stage, and were already bleeding at the nose, two of which were saved. I also fed to the lot a pound of pulverized alum in a bucket of middlings per day—fed to them as I would salt at their feeding ground—and in the course of two weeks all signs of the disease was gone, except the change in the appearance of the hogs that had been attacked, which had generally been the finest and thriftest in the lot, but soon took the other, and many never recovered so as to make good pork when the rest were ready for market in November.

This being a very cheap and simple remedy, I would be glad to hear of others trying it, and report if it prove successful or otherwise. We have had none of it in this neighborhood since the summer of 1858.

Clark Co., Ohio, Jan. 21. J. T. Warder.

[For the Country Gentleman and Cultivator.]

Homœopathic Treatment for Fowls.

Some of my fowls have been attacked by a swelling and sealing of the eyes. After using a lotion of arnica with some success, I had one whose eyes were so bad that I despaired of his recovery. One eye I thought, past recovery; but hoping to save one, I commenced the administration of belladonna—a few globules in a little water. Before giving it, I washed the eyes in the arnica lotion, and turned out of them a mass, that looked like a kernel of corn in size and color, (a pale yellow.) After the administration, in about eight hours, I found both eyes open, so that he was enabled to eat. I then discovered that his head was terribly affected—in short, he exhibited all the symptoms of roup, as described on page 108 of the Cultivator for 1857, (and a very bad case too,) viz.: running at the nose, and almost choking with phlegm. I then commenced doctoring him as for influenza, giving one or two doses of acconite in alternation with arsenicum, with an occasional dose of belladonna for the eyes. The effect of the medicines has been marked, and he is now nearly well—sight nearly restored—running about eating and drinking freely as ever. His head has been badly frozen, and he therefore yet requires care; but if the weather was warm and dry, I should have no fears of turning him out with my other fowls. Being a Dorking, and having been at some pains to exchange for him, and knowing of no other chance to get one at *any reasonable price*, has alone caused me to take so much pains with him. W. E. C. *Cleveland, O.*

[For the Country Gentleman and Cultivator.]

Lime for Fowls.

In winter, when fowls have less access to the ground, or when they are confined in small enclosures, they have less opportunity to select the mineral substances which they require; hence, an artificial supply becomes necessary. How shall this be given? We answer, by placing the articles within their reach, so that they may take voluntarily, just the quantity which they are prompted by nature. Place slaked lime, broken into small pieces the size of peas, on shelves where fowls can readily pick it up. By slaking lime in a vessel, in considerable water so that it will form a paste, and letting it dry, it can readily be broken into the desired form in which it appears to suit the fowls best. Old mortar and broken shells, where they can be had, will answer the same purpose.

Eggs are, if at any time, a luxury in winter, and whatever promotes their production is of interest to the majority of our readers.

The wants of poultry for lime are very clearly shown by a correspondent of the Boston Medical Journal, in the following amusing article: "A most pleasing illustration," says the writer, "of the want of lime, and the effects of its presence, came under my notice on my voyage from South America to 'Sunny France.' We had omitted to procure gravel for our poultry, and in a few days after we were at sea, the poultry began to droop, and wound up their afflictions with the pip, or, as the sailors term it, the scurvy. Their feathers fell from their bodies, and it was perfectly ludicrous to see the numerous *un*feathered tribe in the most profound misery, moping away their time in an utter state of nudity. Amusing myself one day by fishing up gulf weed, which floated in immense fields upon the surface of the ocean, I shook from it numerous small crabs, about the size of a pea. The poultry with one accord, aroused themselves from their torpor, and seemingly, as if by instinct, aware of the therapeutic qualities of these interesting animals, partook of them with greater avidity than any invalid ever swallowed the 'waters' of the 'springs.' After a few hours the excellence of the remedy was apparent; the roosters began to crow, the hens began to strut and look saucy, and in a few days all appeared in quite a holiday suit of feathers, derived from the lime, the constituent part of the crab shells." C. N. Bement. *Springside.*

He is happy whose circumstances suit his temper, but he is more happy, who can suit his temper to any circumstances.

[For the Country Gentleman and Cultivator.]

THINGS IN IOWA.

State Ag. Society.—The annual meeting of this Society at the Capital, second Wednesday in January, elected Hon. Ex-Chief Justice George G. Wright of Keosauqua, Van Buren county, President; Mark Miller, our very excellent editor of the North Western Farmer, Vice-Prest.; Hon. J. H. Wallace, Muscatine, re-elected Secretary; M. L. Morris of Iowa city, Treasurer; Jos. Bridgman of Muscatine, Chief Marshal. The next State Fair is to be held at Iowa City, Oct. 2d—four days.

Some time ago the manufacturers of the Manny Reaper offered one of those valuable machines as a premium for the best five acres of wheat, to be awarded by the State Ag. Society. The result was—J. S. Hunt of Benton Co., 42 bushels 51 pounds per acre—variety "Canada Club." D. C. Lindley, Johnson Co., 30 bushels 16 lbs.—"Spring Tea wheat." Drury Overton of Marion Co., 26 bushels—"Wild Goose." The premium was awarded to Mr. Hunt. This was a very unfavorable season for wheat in all the southern part of the state, and a partial failure in the central.

Iowa Farmer's College.—I have but little to write in regard to this institution. You were informed that the trustees located it in Story county last June, near the center of the state, upon a piece of wild land, of prairie and timber. Owing to our limited means, we have made but little improvement. There is barely funds sufficient to put up a farm-house and barn, and open a quarter section for farming. It is hard times out here in Iowa, as you may know by the report of your subscribers, and it is doubtful if our Legislature appropriate money to build a college before the next session, which is two years. The Farmer's College of Iowa was earnestly commended to the favorable consideration of our Legislature, by our very worthy Governor, J. S. Kirkwood. A large majority of our people look upon it with favor, and will move it into active life as soon as we can gather a little material aid in our private and public purse.

If it is true that daily manual labor will preserve the health of the student—will help the poor scholar to pay his way—if it is true that our farmer's sons, mechanics, professional, and sons of the city, ought to learn something of Agriculture, Horticulture and Forestry, *practically*, and never to depart from the respect and honor of industry, so true will these Agricultural and Horticultural Industrial schools prevail, extend and multiply, until this nation shall be a nation of men and women in the broadest sense of numbers, in intelligence, integrity, domestic and national happiness, wealth and physical strength, such as the world never saw.

Wild Land—Government Lands.—I am comparatively an old resident of the west, and have for the past year traveled considerably over this state. I lament to see so great an extent of our lands bought and lying unoccupied. Our settlement of 700,000 is scattered over 56,000 square miles. This scattering of our population over so great an extent, is a serious detriment. There is something radically wrong in our government putting up land at auction, and making merchandize of it for speculation. This practice of our government leads and encourages men into ruinous folly—not merely ruinous to individual prosperity, but still more ruinous to public prosperity. I have never thought it very wise policy to *give* a *home* to any one who will ask, but to *sell to actual settlers only*, and that too without profit to the government. Suel Foster.

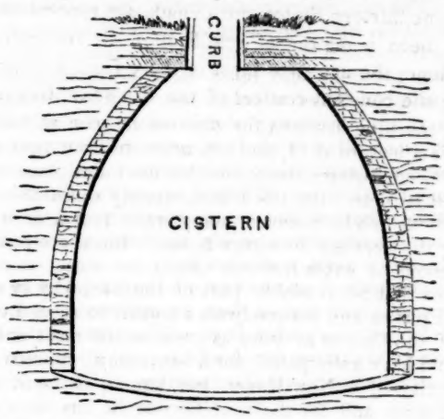
Bucks Co. (Pa.) Ag. Society.—This Society held its annual meeting at Newtown, Jan. 19, when the following officers were elected:

President—William Stavely.
Vice-President—Adrian Cornell.
Recording Secretary—John S. Brown.
Corresponding Secretary—E. G. Harrison.
Treasurer—Jacob Eastburn.
Managers—John Blackfan, Solebury; Lewis Buckman and Samuel Buckman, Newtown; Wm. R. Beans, Upper Makefield; David Cornell, Northampton; Jos. Fell, Buckingham; Cyrus Hillborn, Wrightstown; Hector C. Ivins, Falls; Jonathan Knight, Southampton; John Kelsey, Lower Makefield; Isaiah Michener, Buckingham; James W. Newbold, Middletown; John Robbins, Falls; Wm. T. Rogers, Doylestown Edward H. Worstall, Newtown.

FARM CISTERNS.

Messrs. Editors—Will you please inform me the best and most economical manner of building cisterns for the farm-yard; also the size requisite to supply a stock of say 60 or 100 head of cattle during the winter. A Subscriber.
Perth, C. W.

Cisterns are often made by digging out a space about the shape of, but larger than a potash kettle, plastering the bottom and sides with water-lime mortar, and covering the top with timber and plank, and then with a foot of earth, to prevent freezing, leaving a curb through which the water is drawn, the cistern cleaned, &c. But the top being broad, requires much timber to cover it; and this covering, unless supported by posts, will be apt to fall in in a few years. It is better to build a wall of stone—a foot thick will do, in the form represented in the annexed cut.



The wall being built as an arch, can never fall in, and the earth being packed well outside, it cannot burst by the pressure of the water within. The amount of plank to cover it is small, and it is very capacious.

Cisterns are commonly made much too small. About three feet of rain falls each year, or 72 barrels on ten feet square, or over 2,000 gallons. Cattle will drink an average of six gallons a day or more, and rather over ten feet square would therefore be required for each head. But as these only drink from the cistern in winter, half that surface may answer—and 100 head would need a roof 50 feet wide and 100 feet long, or its equivalent; which would afford yearly no less than 3,600 barrels.

The cistern should hold at least one-half of all that falls in each year, and should therefore have a capacity of about 2,000 barrels. To hold this amount, ten cisterns, each 10 feet in diameter and ten feet deep, would be required; or two each 20 feet diameter and 12 feet deep, or one 30 foot in diameter and 11 feet deep.

Tea Spring Wheat.—I notieed in the Co. Gent. of Jan. 19, (p. 44,) short notice of the *Tea Wheat*, a description of color, &c. Allow me to state that that variety of wheat was sown in this county to some extent, and has proved itself to be as valuable a variety as it was recommended to be. It is a very heavy wheat, weighing more than any other variety of spring wheat known. My neighbor says his crop will turn out one-third more than any other variety ever sown, and will weigh 66 lbs. to the bushel. The kernel is very plump, large, and extremely hard, and grinds equal to any winter kinds. The bread is white and sweet, (knowing from experience.) All who had the genuine Tea Wheat are loud in its praise. My seed was purchased from the Shaker seed-store, and weighed 64 lbs. to the bushel. I sowed the same on clay soil, and am perfectly well satisfied with the result. Will send you a sample of the true seed. A Subscriber. *Buffalo, N. Y.*

THE YALE LECTURES.

NEW-HAVEN, CT., Feb. 15, 1860.

The course of Lectures has now progressed to more than half its allotted limits, with no symptom of abating interest. The attendance I find to be just of that kind, in a large degree, which it was the first object of the projectors of the course to draw out, that is, farmers and farmers' sons. The first week, when Scientific subjects were mainly under discussion, the numbers present I understood were from a hundred to a hundred and fifty. The second week, when Horticultural matters came before the "convention," larger audiences still were collected, owing to the greater interest taken by those in the vicinity in Garden and Orchard culture. The present week is devoted to Practical Agriculture, and next week to Domestic Animals. By looking over the register of names, I ascertain that some thirteen States and Canada are represented, and it has been a matter of gratification to recognize, as I have done, the names of most of those from a distance, as among the constant readers of the COUNTRY GENTLEMAN.

The morning sessions for discussion open at 9 o'clock; there is a lecture at 11, and adjournment for dinner shortly after its conclusion; the second lecture takes place at quarter past two, and the third immediately succeeds—an arrangement made because many were found desirous of taking the evening for return home. But there have been discussions or extra lectures nearly (or quite) every evening, so that no available part of the 24 hours is wasted. Prof. PORTER and his coadjutors appear to regard the success of the Course as quite as great as the most enthusiastic could have anticipated, for a beginning; moreover, the generosity of a New-Haven gentleman, eminent for his public spirit and for the munificence he has shown in assisting to develop the Scientific Department of the College, stands behind Prof. P., I suspect, to afford that absolute certainty of pecuniary solvency to the undertaking, which was so necessary to its satisfactory progress. It is to be hoped, however, that the tickets sold will have sufficed to cover the expenses incurred, without recourse to this proffered liberality.

In the *N. Y. Tribune*, the *N. Y. Times*, the New-Haven, Hartford and other papers, reports of the lectures have been given from day to day. It was considered impracticable to present abstracts in the Co. GENT., because so much has been going on that an adequate summary would have been quite inadmissible with such a constant pressure of other matter as the present season of the year always affords, and an attempt at very close compression can only be made at the hazard of conveying wrong impressions, and often at the entire forfeit of all the real value of what is said. I am glad to notice, however, that the reports of what I have been personally present to hear, are in general so truthful and accurate; and I have no doubt that the wide dissemination given to them, will attract greater public attention to similar courses that may hereafter take place.

It had been objected by some that so constant and protracted attendance must become wearisome before the month is over. But while the audiences are in some measure constantly changing—some selecting one week or one series of subjects, and some another—I have met with a number of those who are here for the whole course, and I have been pleased to hear from very practical and entirely disinterested sources, a uniform expression of entire satisfaction with all they have thus far seen and heard, and of belief in the usefulness and value of the scheme as thus realized, beyond the expectations they had formed.

It it not impossible that in undertaking the project a second time, *less* rather than *more* would be put down in the programme. Somewhat less of opportunity has been given for general debate than was perhaps expected, but it may be quite as advantageous to listen to the well considered opinions of the invited speakers as to join in a rambling *talk*. And, particularly with those to whom such meetings are an entire novelty, it would be difficult to devise a plan better calculated, as I think, than the present—to enlarge the views, convey knowledge of a practical sort, prompt to more activity of mind, and lead to pleasant and profitable associations, both as regards the lecturers—among whom there are some whose acquaintance is a good thing to put within any young farmer's reach, while no object is perhaps of greater importance than to bring him into more immediate contact with others of his own class, to awaken in this way his interest in what they are doing—his ambition as to what he can himself accomplish, and lastly, to arouse a better appreciation of their pursuit in the minds of those ready to forsake it. L. H. T.

Durable Whitewash.

MESSRS. EDITORS—Can you give me through the columns of the Country Gentleman a recipe for making whitewash that will last for a number of years exposed to the weather? I have heard of some substance which may be added to common whitewash so as to make it last for five years or more—but have fogotten it. If you know what it is, please oblige a ubscriber. D.

We have tried many kinds of lime-wash recommended for their durability, but we never yet found anything at all equal to *oil-paint*. They are always more or less soaked by every rain that falls upon them, and when this is followed by a frost before they become quite dry, they crack and scale off. Whitewashing, however, if repeated every year or two, is cheaper than paint, and assists greatly towards rendering fences, out-buildings, &c, more durable and especially prevents the growth of moss. A comparatively cheap oil-paint for such structures may be made by mixing ground water-lime and some gypsum with the oil. A portion of ochre will modify the color.

If any of our correspondents know of a durable and cheap whitewash which has stood the test of years, we should esteem it a favor if they would describe it, the mode of application, and what it has accomplished.

[For the Country Gentleman and Cultivator.]

How to Make the best Ice Cream.

MESSRS. EDITORS—I fully intended answering Jenny's appeal for a recipe for ice cream, but idleness prevented until I found myself anticipated, this week by "an old subscriber." As however, I think my own infinitely the best, and having a rural antipathy to those wretched substitutes for eggs, so much in vogue now-a-days, whether isinglass, arrow-root, flour, Oswego starch, or what not, I will still copy mine, which has been pronounced (when well and *smoothly* frozen,) as good as the very best. I will only observe, that its quality greatly depends upon the freezing, as well as on the richness of the milk, which must always be new milk, with as much cream as you can afford. Mine is often made entirely of milk, but a proportion of cream greatly improves it.

To every quart of milk, take three eggs and a heaped up cup of crushed sugar; put the milk and sugar in a tinpail and set it in a kettle of boiling water over the fire; stir it occasionally to dissolve the sugar, and when nearly scalding, take it off and let it stand a few moments, while you beat your eggs well up; then stir them into the milk and put it over the fire again, stirring it constantly until it thickens, but do not let it boil or even curdle—take it off; and when nearly cold, flavor it to your taste and send it to the freezer. I think I use a half a bottle of Mitchell's or Meakim's extracts of vanilla, to every four or five quarts. H. H.

P. S. My cook, whom I taught to make it, corrects some of my measurements. She says she always adds a little extra sugar; generally another cupfull, when making six quarts, and so in proportion; and also that a bottle full of extract is not too much for six quarts.

PRUNING PINE TREES.—A writer in the N. H. Journal of Agriculture, has been pruning his pine trees in the winter, sawing off neatly one tier of branches each year, and he finds the wounds heal over fast, and the trees look green and healthy, while those pruned in the summer with an axe, several tiers of branches at a time, look stunted and sickly.

[For the Country Gentleman and Cultivator.]

WILSON'S SEEDLING STRAWBERRY.

This is a variety that is fully worthy of the high commendations it has received, and it is decidedly the most prolific of any variety I ever cultivated, and the number somewhat exceed 40. It succeeds well upon almost any soil, and bears abundantly. I have seen accounts of large yields from this variety, but last season I had the curiosity to determine how much could be raised. I measured one bed, 16 feet by 17 feet, and measured the berries, and obtained 3¼ bushels, which would be at the rate of 560 bushels per acre. The plants were set 2 feet by 1 foot, and allowed to cover the ground, and the above is the result. The bed has now to be turned under and manured and re-set. I have found this method to be the least trouble, but the beds require to be renewed every third year. The old plants usually exhaust themselves, and require the thrifty runners to renew with. WILLIAM NEWCOMB.

Rensselaer Co., N. Y.

[For the Country Gentleman and Cultivator.]

TOBACCO CULTURE.

MESSRS. L. TUCKER & SON—I notice that inquiries are occasionally made through the medium of your columns, for information in regard to the cultivation of tobacco. Having had some experience with this crop, I venture to supply you with a few remarks which its consideration suggests.

There is no hand-book on the subject. No person should think of raising tobacco to any extent unless he knows all about it, or has in his employ some one who does, that he can depend on. Every part of the process, from the time you undertake to prepare the ground for your seed plants, in March or April, till it has undergone its last manipulation in the winter following, requires close attention, a nice judgment, and a thorough acquaintance with the business. I should recommend to any person determined to engage in the cultivation of tobacco, but without experience himself, to procure the services of some one else who has, to raise one or two crops for him. He should hire his labor from a tobacco district, the valley of the Connecticut River for instance, for one or two seasons, after which he might attempt its management without such assistance. It is a good way to adopt the Connecticut River plan—that is, for the owner of land to furnish the ground, properly fitted with the sheds for curing the crop, and let it upon shares or for a money rent, to another, to perform the labor. This is done to a great extent at the east. The proprietors of river bottom, especially along the Connecticut, provide land, manure, housing, &c., for which a rent of fifty dollars, and I think one hundred per acre, are paid. The crops thus produced will sometimes amount to $300 per acre. The tobacco raised in this county has occasionally sold for that sum. The cultivation of tobacco has been carried on in Onondaga county for ten or fifteen years, having been first introduced from the Connecticut. It is now grown mostly in small parcels, many of the farmers in some of the towns planting from half an acre to two acres, which they can take care of without its interfering with their main business, and with no special outlay for shed-room. Tobacco is an uncertain crop as to price, and if grown to the extent of five or ten acres, requires a considerable preliminary expenditure for curing sheds. It is doubtful whether its cultivation at the north is permanently beneficial. Ten acres would consume all the manure which could be produced on a large farm with the ordinary amount of stock. But when extraordinary facilities are enjoyed for obtaining manure, nothing pays better. A gentleman in this city furnished ground and manure from a distillery, for 15 or 20 acres, last year, which was worked on shares, and the same parties are making preparations to plant 35 acres in the spring. A distiller in the western part of the county has raised even more. But this can only be done where manure can be obtained in abundance. I presume that men could be hired who have worked in the tobacco fields of this county, capable of taking charge of a crop, though they might demand more than the ordinary rate of wages. There are Yankees enough to be had on the Connecticut River on similar terms. Any person who imagines that he can grow tobacco successfully or profitably, from written or printed directions, has only to make one trial of it to be convinced of his error. It is an art only to be acquired under the instructions of a master.

Northern tobacco is grown principally for segar wrapping, for which its thin leaf is especially adapted. Calcareous soils produce the finest qualities. The crop of 1858 raised in Cayuga and Onondaga counties, mostly the latter, was estimated at 4,400 cases of 400 pounds each, and at 10 cents per pound was worth something like $175,000. The last was an unfavorable season, and I have no definite information as to the quantity produced or its value. V. W. S. *Syracuse, Jan.* 25, 1860.

Cost and Profit of Hens.

MESSRS. TUCKER & SON—Having been a subscriber for the COUNTRY GENTLEMAN for some time, I have been somewhat interested in the various articles from your correspondents, tending to develop the best methods of productive industry, as well as being enlightened by perusing them. If my experience with poultry will add anything to the common stock of knowledge on that subject, I give you the result of my experience from Jan. 1, 1859, to Dec. 31, 1859. As I was but a novice (when I commenced "the science of henology," some two years since) as to their habits, proper food and nature, I have been obliged to learn everything in relation to that subject by experience. I commenced the year with 58 hens and two roosters, Black Spanish breed with a cross of about 1-18th of Game and Leghorn. I give you the quantity of eggs for every four weeks, from January 1, 1859, to December 31, 1859, as follows:

Four weeks to Jan. 28,.....	293	Am't brought up.....	6,134
" Feb. 25,.....	678	4 weeks to Sept. 8,.....	541
" Mar. 25,.....	971	" Oct. 6,.....	470
" April 22,....	1063	" Nov. 3,.....	294
" May 20,.....	955	" Dec. 1,.....	248
" June 17,.....	861	" Dec. 29,.....	306
July 14,.....	720	" Dec. 30 and 31,	20
Aug. 11,.....	593		
	6,134	Total in one year,....	8,013
		or, 667 doz. and 9 eggs.	

Eggs have averaged in our market over 25cts. per doz., which will make the total of 667 doz. 9 eggs at 25 cts.,	$166.94
My family have consumed about 30 fowls, at 37½c.	11.25
My stock now is 73—increase of stock 13, at 37½.....	4.88
	$183.07
I have kept an accurate account of the cost of food. When I have given them corn of my own raising I have charged it a $1.00 per bushel. The whole cost of food has been,.....	99.75
I carry to the account of Profit and Loss, Cr. side,...	$83.32

About a dozen of my old hens have died. My chickens came in late. I have had but few eggs from my young chickens. The average of my laying hens would not exceed 50, which would give an average of about 160 eggs to each hen. B. *Newark, N. J.*

Barley Meal and Shorts for Cows.

MESSRS. EDITORS—I wish to know the relative value of barley meal and shorts for feeding cows giving milk, which would make the best feed, say three quarts of barley meal or four quarts of barley meal and shorts, equal portions of each, daily? I wish to feed about that quantity in addition to hay and roots. The milk is used for butter making—barley is worth about sixty-three cents a bushel, and shorts one dollar a hundred, consisting of the coarse and fine bran, without that portion termed ship stuff. I have usually fed a mixture of the above, but have some doubts about the utility of feeding shorts to make rich milk. My mode of feeding is to add scalding water sufficient to make a thin slop, and feed it when cold. I prefer this way to feeding it on cut straw or hay. I should also like to know the value of brewer's grains as a feed for cows—it can be obtained here for eighteen cents a bushel—will it pay at that, and is it suitable feed for cows giving milk? By giving the desired information through the Co. Gent. you will greatly oblige J. L. R.

We know of no definite experiments to determine these points—nor do we know the prevailing opinions of intelligent farmers who have given these materials for food a thorough trial. Barley meal makes a rich feeding—at its present low price, it is thought by some to be the most profitable food for cattle. We have used it ground with corn in the cob, and find it excellent.

[For the Country Gentleman and Cultivator.]

ON FEEDING CATTLE AND SHEEP.

A Young Farmer, p. 60, Co. Gent., asks me to give him information about buying and fattening stock. It is almost impossible to do this on paper. It is one of those things that has to be learned by experience, and I have often advised beginners to commence on a small scale, and feel their way cautiously. One great error in many, is that they get alarmed for fear they are going to lose by the operation, and sell their cattle before they are half fat, which almost never pays. For instance, if you feed 100 days, they will generally gain more the last 35 days than in the first 65. Others again, when they think they are not making fat fast enough, (as all men unaccustomed to feed will,) are apt to feed too much meal. Cattle that have been kept on poor fare, cannot stand much meal the first two months. I can put on more fat on such cattle with three or four quarts of corn-meal or its equivalent in other feed daily, with right good hay, than with double the quantity of meal. Take three or four year old steers of good quality, and an average of four quarts of meal with good hay for 100 days, and they will make prime beef with me. In 100 days, aged oxen will require much more meal, but I never made any thing by fattening oxen unless bought very low. You get no growth on them—only the fat you put on.

Farmers that intend fattening cattle, should always buy those of good size of their age. It takes no more to fat a steer that weighs 1,400 lbs., live weight, than it does to fat one weighing 900 or 1,000 lbs., and the largest will always gain the most with equal feed, if they are of the same age. Then when fat, the largest are worth more per pound to the butcher; so there is a profit every way in fattening cattle of a good size according to their age.

Then again I have seen men undertake fattening cattle, and think they must be stabled all the time, and only let out to get drink. I think it is very far wrong; for many years I have only stabled them while they eat their meal, feeding their hay in open yards in boxes. They have the liberty of large sheds to go out and in as they choose, with both sheds and yards thoroughly littered with straw, and in this way my cattle are always as clean as they are in summer when in the fields. Cattle won't lay down in dirt if they can get a clean place. I only, or at least seldom, buy sheep or cattle oftener than once a year, unless I sell in February, and buy half fat ones to finish off before May.

I have given my mode of fattening sheep so often that I think a "Young Farmer" must have read it. One thing I will tell him, that it takes no more feed to fat a lot of sheep averaging 140 or 150 lbs. than it does the same number averaging only 85 or 90 lbs.; therefore it is far more profit to feed heavy sheep than light ones. I have heard men I thought of great knowledge, say that every animal eat according to their size but man, and for a long time I believed it; but when I came to feed steers meal in stalls, some weighing 1,000 lbs., some 1,500 lbs., and found the largest putting on the most fat and gaining most in weight, which they always do, I found those mens' theories would not stand the test when tried by practice.

I look upon experience as being of vast importance to the farmer, and farmers can if they choose, make many experiments at little cost, even if they don't succeed; but I would not advise a "Young Farmer," or any one else, to go into fattening stock largely for market, especially in winter; but I would advise every one to feed their regular stock much better than is generally done throughout Western New-York. I know men who keep, say 25 head of store cattle, that don't pay any profit, and another will keep 5 or 6 that will sell for more than the other 25 or 30, and make a good profit; and the same way with sheep. An immense improvement can be made on the Merino sheep; if only thoroughly kept the year round, they can be made to weigh from 130 to 150 lbs. and more when fat, and at a great profit—more so I think than any other kind of sheep or cattle either. But farmers in general think any feed may do for sheep—fallows, woods, stubble-fields, and even the highways, and in fact the latter is often their best pasture. Now if men would only reason on the subject, and think how their horses, or milch cows, or fancy cattle, if they have any, would do with such treatment, I know there would soon be a great improvement in stock generally, and in nothing more than in the Merino sheep. Where you find a farmer who has purchased a few Leicesters or South Downs at a high price, those he feeds well, and he gets well paid for it, and I am convinced that Merinos would pay him better if he would give them the same feed. JOHN JOHNSTON. *Near Geneva, Jan.* 31.

[For the Country Gentleman and Cultivator.]

USE OF SPARRED FLOOR STABLES.

MESSRS. TUCKER & SON—I am not accustomed to write for the public eye, but I notice you ask for the views and experience of your readers on the use of sparred floors. I keep from sixteen to twenty cows on sparred floors. They suffer no inconvenience. I use no bedding except in the coldest weather. I have a cellar under the stable, eight feet deep, into which the manure drops. Not having muck, I use earth from headlands to mix in to absorb the urine. We draw the earth and put it in a pile convenient to the stable, any time when it is most convenient.

In my stable are two rows of cows, heads from each other, tied in stalls six feet wide, and two in a stall. I have a double door, wide enough to drive a horse and wagon with dirt into the stable. The barn stands on a side-hill. The manure is easily removed, as we back the cart up to it, under the barn. When the cellar is empty we cover the bottom of it a foot or so with earth, and then earth is added from the pile or field as suits our convenience, from time to time, at the rate of from eight to twelve loads per week.

In this way I get a large pile of excellent manure. It is not very hard work, for we drive a horse and wagon with the dirt into the stable, and if the dirt is fine, we throw it on to the floor, and it passes down readily with the manure, just where it is wanted—if not fine, we throw it down the scuttles.

Perhaps I ought to say that my cows run in the pasture during summer, and are stabled nights, and fed a little green fodder when the pastures are short.

Some may think it hard to get dirt from a pile out-doors in winter. But I find by practice it works well. Last fall I made a pile 12 ft. by 30 ft., 8 ft. high—the outside froze a foot thick or more. When we wanted dirt we took our picks and made a hole of sufficient width to back in the one-horse wagon. After getting what dirt is wanted for the time, the entrance is closed with straw, and the frozen earth forms both walls and roof. When we want more earth, remove the straw, back in the wagon or sleigh, and it comes easy. In case of a long thaw the roof may need some support. The center of the pile is considerably the highest; this allows the water to pass off free, and perhaps adds strength to the roof. M. S. K.

Chicopee, Mass.

LARGE YIELD OF CARROTS.

A correspondent of the *New England Farmer*, writing from South Danvers, says—"Mr. B. H., one of the most successful cultivators in this town, informed me that he had gathered six tons of as handsome carrots as he ever saw, from thirty-seven square rods of ground. This would be about one ton to six square rods, or about twenty-seven tons to an acre," &c.

Although this is a heavy crop, it will not compare with some crops of the same vegetable grown here. For instance, in the fall of 1858, Mr. Wm. H. Starr, proprietor of the East New London Nurseries, gathered from eight square rods of ground, seventy-five bushels of splendid carrots, of the long orange variety, being at the rate of 1500 bushels, or forty-five tons to the acre; and the present season, (1859,) he gathered from five square rods, orty bushels of the short *horn* variety, being at the rate of 1,280 bushels, or more than thirty-eight tons to the acre; and this on land not better than an average of this entire field. Can any of your correspondents inform us of a larger yield from ordinary cultivation? H. E. C.

Inquiries and Answers.

CUTTING FODDER.—How short should fodder be cut for milch cows and young cattle? The machines in use here cut it in lengths varying from three fourths of an inch to three inches. Which is the proper length, and why? *Cheshire Co., N. H.* [When hay and straw only are to be cut, for the purpose of mixing them together, (as well as for having short manure,) an inch or two in length will answer, and some animals even like them better than if shorter. But for *corn-stalks*—which are doubled at least in value by cutting properly,—the length should not be greater than about the fourth of an inch, and such a machine should be driven by horse-power. If the length is greater than this, many hard, woody lumps will not be eaten. The nearer that the stalks are reduced to the state of a powder or fine chaff, the more freely they will be eaten, and the better they will be digested. If cattle will not eat them well at first, a little meal intermixed, and some salt or brine sprinkled thinly over, will render them palatable.]

UNDERDRAINING.—Much of our land in this country is what we term a cold clay soil. It generally produces grass very well, but is too wet for anything else, except in summer after it is too late to put in a crop. It is in many places wet on the side of a hill, the water not seeming to come from any one channel, but to issue from the ground as much in one place as another, rendering sometimes several acres in a place unfit for the plow, and if we make a ditch it will be as wet within ten feet of it as it was before. Now what I wish to know is whether such land can be profitably underdrained, and how? K. C. *Deerfield, Va.* [We have met with similar land, and have underdrained it profitably. We would recommend parallel drains, three feet deep, and two rods apart, the shortest way down hill. These will be likely to tap all the subterranean puddles and springs, and carry their contents speedily off; but if any wet spot remains afterwards, a side ditch will tap it. A single ditch may fail to accomplish the object; but a series of parallel ditches scarcely ever fails. We should have no fear whatever. Tile is best and cheapest, but stone will do; and if the quantity of water is small and the descent steep, brush will do.]

PAINT FOR BARNS.—Can you inform me through your columns what is the cheapest and most durable paint or wash for old buildings. I have on my farm two barns that have been built 15 or 20 years. They are in a good state of preservation, and only lack a coat of paint to look well; but as they have been exposed to the weather so long, it will take a large quantity of oil to paint them. If you or any of the readers of the Country Gentleman can give me any information or advice how to paint them well and cheaply, you will much oblige A. SUBSCRIBER. [We think a coat or two of good whitewash first given to these old exposed surfaces, will serve to fill the pores of the wood, which would otherwise absorb a great deal of oil. In the course of a year, when the lime has lost all its caustic quality, and will no longer make soap of the oil, the paint may be applied. Whitewash alone, if repeated biennially, would be very useful.]

COBBLE-STONE FLOORS.—Have you or any of your correspondents used cobble-stone for stable floor, and are they as good or better than plank? A SUBSCRIBER. [We have seen cobble-stone, laid as a pavement, for the floors of cattle stables. They must be solidly as well as evenly laid; solidly, or the stones will work loose, or the pavement become uneven; and evenly, or they will be unpleasant to the cattle and hard to clean. They require a free use of litter to make them comfortable. They are of course, very durable, if well laid. As it has been found injurious to horses to keep them in a basement stable, cobble-stone cannot be well used for them. The practice of filling in the interstices and coating the surface with water-lime mortar will answer only in such places as are free from frost, which soon cracks and spoils wet hydraulic mortar.

ARTIFICIAL STONE CELLAR WALLS.—Can some of your correspondents inform me how to make artificial stone, and will a house built of it stand the frost well; and how will it answer in building cellar wall, where stone is scarce, to lay in blocks of wood instead of stone? How will it do to plaster on the bare earth, a part of the way, instead of building a wall from the bottom of a cellar clear up to the floor of the house? A. B. [The first question we must leave for such of our correspondents as have tried artificial stone. Blocks of wood will not answer instead of stone, except when set in the wall merely to drive wooden pins in, or to nail to—in which case they should be in the dryest places. Near the earth, they would shrink and swell by dryness or wetness, and soon decay. On very hard smooth earth, water lime might be used, without building a wall, if it were possible to have a stone wall foundation above it. Frost soon cracks water-lime; and to have it for the lower portion, and common stone wall for the exposed part, would be entirely incompatible with solidity.]

STRYCHNINE FOR RATS.—I noticed in the Cultivator, that some of your correspondents advise the use of strychnine to destroy rats. Do you think that the use of it would be safe in a barn where the rats have access to the hay-mow, corn-stalks, and rutabaga cellar? A SUBSCRIBER. [If the pure or concentrated strychnine is used, it will probably finish speedily every rat which partakes of it before he has had time to scatter much. It is well, however, to use caution, that nothing voided by them is mixed with the roots or grain before it is fed out. The danger is small.]

HAY AND CORN FOR FEEDING.—Can you or any of your readers inform me of the value of good hay compared to corn as feed for wintering cattle and sheep—which is the cheapest to purchase, hay at $12 per ton, or corn at $1 per bushel? C. C B. *St. Albans Bay, Feb. 2d, '60.* [Authorities as well as experiments vary considerably as to the relative value. Difference in the quality of the hay no doubt has partly produced this variation, as well as the condition of the corn and the peculiar character of the animals But the average places hay as little more than one-half the value of corn, of equal weights; say 50 lbs. of corn equal to 100 lbs. of best hay, would make 20 bushels of corn equal to a ton of hay. The hay is therefore much the cheapest. A little corn, however, well ground, and given daily in connection with the hay, may be profitable, as mixed food is found best.]

COBS FOR FOOD.—Will you give us your opinion as to the value of the corn-cob ground with the corn; it is a general practice here to grind them together, and has been mine until latterly, when I have come to the conclusion that they (the cobs) are only fit for fuel; and now I shell all my corn giving one quart a day to my calves, two quarts to heifers, and three to my cows. I have been looking over your back volumes to try to find the information, but *cannot;* and there is such a diversity of opinion here, that I thought I would like to have yours, which I have always supposed first authority in all such matters. A. W. PARSONS. [Analysis shows that cobs contain some nutriment, but the amount is quite small. The question whether to use them, should be answered somewhat according to circumstances. When ground, after cracking, by a common grist mill, many hard lumps remain unpulverized, and these are hurtful to horses, but may be of no detriment to cattle. If ground in this way, the meal should therefore be sifted, if for horses. We find, however, that the new farm-mills, like Joice's Star Mill, Scott's, or Young America, if in good running order, will tear the cob into such minute fragments as to obviate this objection. But when these facilities are not at hand, but little loss will be sustained if the cobs are entirely rejected, and only used for kindling-wood.]

KEEPING FRUIT.—Would it not be well to give on one sheet, the results of experience *in keeping* different kinds of fruit—little details wanting, result in an entire failure. I have just opened a box of grapes put up with layers of cotton, and not one fit to eat. J. H. [We intend, on a future occasion, to furnish some facts on the subject; and in the meantime would be glad to secure the results of experiments from those who have been uniformly successful, as well as those who have failed. The mode of packing should, however, be given at the same time, as well as condition of the fruit, character of the treatment, &c. Our correspondent may have failed because his grapes were not well grown and well ripened, indispensable requisites; or from a damp apartment, too warm a temperature, or all these combined. Unless grapes are thoroughly cultivated and freely pruned, they never ripen well enough to keep long.

SHARES' HARROW.—Would you advise a man to purchase Shares' coulter harrow, as a useful farm implement? My land is a stiff clay. I have not a cent to spare or speculate on, yet I am willing to do anything that will assist in thoroughly refining and pulverizing the soil, as I think that in itself is equal to half manuring, and if so, please say what may be the cost, when dropped at the Chatham station, C W. [We think our correspondent will run little risk of loss by purchasing Shares' harrow, if he has a farm of average size or over. For pulverizing the surface of newly inverted sod, either for planting corn or other crops, we know of nothing that will compare with it, as it cuts up and mellows the surface more than twice as deep as the common harrow, and does not and cannot tear up the sod. It is also said to be excellent for

covering sown grain, but on this point we cannot speak from our own experience. The only disadvantage we have found, is that the teeth are not quite strong enough for the rough usage they sometimes get from hired men—but which care would obviate. We find the timber work heavy enough. The cost is $15 at Albany, and a dollar or two would be charged to carry it to Chatham station, C. W.]

Milk Weeds.—Can you tell me how to destroy this pest of the lawn and meadow? I have an annual crop in a lawn, which it is not desirable to plow and cultivate for two or three years, if it can be avoided; yet I find that the plant rather *enjoys* being pulled up twice in a season. How shall I kill it? E. [To destroy any weed, like the milk-weed, which extends beneath the surface by creeping stems or roots, *it must not be allowed to breathe.* Cut every plant as far below the surface as possible, the first moment the tip of its stalk appears, by means of a chisel set on the end of a spade handle—unless the soil is so loose as to allow pulling to bring up a longer portion. Watch constantly for a few months, and keep them all below ground, and they will die. But if the care is intermitted they will soon renew themselves, and the war may be interminable.]

Laying out Drains.—J. T. H. has sent us a plan of his grounds, for directions how to lay out ditches for draining it. There are two important points of information not given, which are requisite to enable us to furnish these directions—The first is the size or dimensions of the land, that we may know the number and distance of the drains. The second is the degree of descent or slope—the number of feet of fall in a hundred, both of the swamps and upland, as nearly as can be determined by a common leveling instrument. He wishes his inquiries answered in the Cultivator for February—but, as is often the case, the inquiry came after that number had gone to press.

Salt for Cattle.—Can you inform me if some salt is not indispensable to the health of cattle, given with their food? W B [It is the common opinion that a portion of salt with their food contributes to the health and thrift of animals.—But the experiment can never be tried, whether they would do well entirely deprived of it,—for all vegetables have more or less of it. For example, a ton of barley straw contains 4 lbs. of salt; a ton of green white clover, 2 lbs.; a ton of carrots, 4 lbs., and a ton of beets 15 lbs., according to chemical analysis. How much more ought to be added to this portion, for the best health of animals, we cannot tell.]

Chinese Sugar Cane for Cattle.—What are the properties of the Chinese sugar cane as a substitute for hay, to be fed to horses, and would you recommend it in preference to common millet; and if so, how should it be given, what its culture and process of saving? M. [We have never used the Chinese sugar cane to any extent, for horse feed. We have no doubt it would answer well in winter, provided it could be cut very short by a horse-power cutter, say not longer than a sixth of an inch. This would remove that hard woody character which the stalks possess when kept till winter. We have found cows to eat it well when cut somewhat longer; and in autumn, before it becomes dry, it is eaten in the stalks by them with great avidity. We should, however, prefer cutting it for horses, even at this time of the year. To raise the sugar cane, it should be grown in drills three feet apart, by plowing furrows at this distance, strewing the seed along at the rate of thirty to a foot, and covering with a harrow, run lengthwise. Cultivate it two or three times—it will not require hoeing. The product will be several times greater than that of meadow. Put it in large shocks, where, as it is stiff and tall, it will keep well till wanted.]

Liming Land.—I should like to be referred to some work containing the best treatise as to the quantity, time and mode of application of lime as a fertilizer; and whether it is best applied in the caustic or slaked condition. A. W. McDonald, Jr. [Our correspondent will find good practical directions in Stephens' Book of the Farm, for the English practice, and in Allen's American Farm Book, for American practice. He will also find much on the subject in Browne's Field Book of manures, a good compilation on the subject of manures generally.]

To Butter-Makers.—Can some one of your numerous readers inform me through the Cultivator, the best way to keep butter in rolls during the hot summer months. L.

Floors for Cattle Stalls.—Will you do me the favor to inform me as to the best mode of constructing floors in cattle stalls. My stable is to be 62 feet long, and 30 feet wide, with a passage of 6 feet running the length of the house for the convenience of feeding. The stalls are arranged on each side, the animals standing with their heads to the center and entering through a door in the outside wall. There is no communication between the stalls, each animal entering her own stall through this outer door. I wish a floor that can be easily kept clean, and one that will drain off the urine. It is intended principally for cows, though I may need a few stalls for bulls and steers. Please tell me how I can arrange it to drain the urine into the manure heap or some better place, without too much cost. I wish, also, the floor of the whole building rat proof if possible. R. W. H. *Moorefield, Ky.* [The best floor, perhaps, is made of hard-burnt brick set on end. If well laid, this floor is smooth, easily cleaned, and will last indefinitely. Neatly laid paving stone do well, but need more litter to make a soft bed. Some good farmers prefer hard beaten earth for the floor on which the fore feet stand, on which the animals may kneel on lying down and rising, and to be well covered with straw to make it comfortable. The hinder portion is to be paved with brick, stone or with thick solid flagging. A gutter may be made behind the stalls to carry off liquids, but the bottom should be flat, and wide enough to receive a square shovel for cleaning it daily. This gutter is best made of flagging, or of wood; but unless the wood is of some durable sort, it will soon decay.]

Kidney Bean.—Will you inform me through the Co. Gent., if the Kidney Bean is a pole bean or not, and where can they be had for seed. E. J. P. *Orleans, Co., N. Y.* [The name Kidney Bean includes all the varieties of the *Phaseolus vulgaris*, or common garden bean, including both the bush and running varieties. The seed may be had at all the principal seed stores. The *Vicia Faba*, or English garden or horse bean, is totally distinct, and of no value in this country.]

Grapes for Vermont.—Please inform me which are the best sorts of hardy grapes for Vermont—say half dozen sorts. S. Dillingham. [Delaware, Diana, Hartford Prolific, Northern Muscadine, Concord, Rebecca.]

Corn Shellers.—Do you know of a corn-sheller constructed with a hopper, so that the ears can be poured in promiscuously and will feed itself? J. Randall. [All common corn-shellers, worked by hand, receive the ears one by one, on end—but there is a large one driven by horse power, into which the ears are emptied by the bushel, and which can be had at most agricultural warehouses.]

Langstroth's Bee-Hive.—*P. P. P.* The purchase of Mr. Langstroth's book, does not, we presume, give any one the right to use his patented hive. What the charge for the right to use it is, we are not informed.

The Kicking Colt.—In answer to your correspondent who asks for the best method to break a colt of kicking while being cleaned, I would say, according to my experience, the most easy and effectual way is to bend one of the forelegs and slip a loop over it, so that he cannot get it down—after the Rarey plan. While in that position it will be impossible for the colt to kick, and he will at once submit to be cleaned. Also, if a colt is reluctant—as is often the case—to have his hind legs handled, or his crupper adjusted, this mode of treatment will be found effectual. This method may also be applied with success to kicking cows. S. *Fayetteville, N. Y.*

Urine as Manure.—Will you please tell me how to best use the urine of, say about 300 workmen, on a farm I own of about 50 acres? If used as a top-dressing, how much must it be diluted? If it will interest you or your readers, I will give you the method I employ to obtain so much urine. A Regular Reader and Subscriber. [If used as a liquid manure, it should, while fresh, be diluted with at least its own bulk of water, for two reasons; first, that it may not prove injurious by being too concentrated; and secondly, the water retains a large portion of ammonia and prevents its escape during the fermentation of a few weeks, which should always take place before it is applied. If intended for compost, many substances may be used for absorbing it and giving it a solid form, such as *dry* peat, *dry* loam or turf, sawdust, straw, coal ashes, and charcoal. If any of these substances are moist, they will absorb but little, and retain less. The amount mentioned would probably be a sufficient application for ten to twenty acres, if preserved and used in the best manner. Please send us the method alluded to.]

Farm Record.—In the first No. of the present vol. of the "Co. Gent.," I see a notice of a blank book, ("The Comprehensive Farm Record,") gotten up by Dr. F. B. Hough of Albany, which was expected to be issued about this time. How will we find out the price, &c? D. S. *Pennsville, Pa.* [The book will, we presume, be advertised in this paper, with price, &c., as soon as ready, which will, we understand, be early in March.]

[For the Country Gentleman and Cultivator.]

SOILING CATTLE.

Editors of the Country Gentleman—I am always glad to see this subject discussed in the Agricultural papers, for I think it of great importance to a large number of the farming community. And as I have kept my stock under this system, for the last four years, with your permission, will give the result of my experience and my method of doing it. If what I shall say, will throw any light upon the subject, or benefit any one, I shall feel rewarded for the effort.

I have a farm of fifty acres, all tillable land, except about three-fourths of an acre around my barn—rather stony—this is fenced off for my stock to run in, during the summer. In this lot there is an unfailing spring of water, sufficient for fifty head of cattle, at all seasons of the year. My stock is small—have usually kept six cows, two yearlings, and raised two calves yearly, but intend to increase the number of cows. I also have a span of horses—they are kept on cut hay and meal, until spring's work is done, and then put upon the green diet.

The crops raised for soiling purposes, are rye, corn, sorghum, millet (have raised three varieties, think the Hungarian best,) and clover—though last season clover was entirely killed out, and I was compelled to use Timothy and red-top. My stock kept well on this—clover, however, is preferable, as it yields a larger amount of feed, and may be cut two or three times during the season. Corn, I consider the best of the other crops named, but for the sake of variety, would raise them all.

The mode I pursue is this: In the fall I sow about an acre of rye, pretty thick—then in the spring, as soon as the weather and ground will permit, I put in a piece of corn, sorghum and millet, and at intervals of about two weeks, put in more of the same, until about the middle of July. In this way I secure a succession, and a variety of fresh, succulent feed—just the thing for making milk and butter. I also raise roots to some extent, and think them valuable to feed in the spring to milch cows. The sugar beet and carrots succeed best with me; turnips are generally a failure, from the ravages of the fly. Pumpkins are excellent to feed in the fall, to keep up the flow of milk.

In pursuing this system, it is necessary to fodder a little later in the spring, as neither rye or grass are sufficiently large to cut, as early as pastures will do to turn into. I feed hay and roots, with a little meal or shorts, until the rye, sown in the fall, is about a foot high—then commence feeding from it—moderately at first, so as not to make the change from dry to green food, too rapid, and increase the quantity, as it increases in size, and the cattle become accustomed to it. In a few days, clover will do to cut—when it is from four to six inches high, if it stands pretty thick—and is fed in addition to the rye. I continue to feed hay until well into June. Cattle will eat a little hay once or twice a day, and relish it, when kept on green feed, whether soiled or pastured. By the time the rye is disposed of, clover has attained sufficient size to furnish all the feed required. As soon as the other crops are large enough, I feed from them once a day—changing from one to the other, often—cattle like a change of diet—making clover the principle feed as long as it continues fresh and good. The other crops are to furnish a variety, and to meet any contingency that may arise from drouth, or otherwise, and for fall feeding.

The next thing in order, is the cutting of the feed and care of the stock. Clover should be cut when fresh—in the early part of the day, or just before night. Morning is the best time, but not until after the dew is off; for if cut and handled when wet, it is not as well eaten by cattle, and I think is not as good for them. My way is to cut in the morning, sufficient to last until the next morning, and draw it in immediately, so that it shall wilt as little as possible, and place it in a long narrow pile in front of the manger—it is then convenient for feeding out, and will keep fresh until used up. Saturdays, I cut in the morning, and again at night—the last cutting to be fed the next day. It is important that sufficient feed be provided at night, for foddering in the morning—cattle are early risers, and want their breakfast as soon as up, and should not be compelled to wait for it. Foddering should be done the *first thing* in the morning, and should be repeated *two or three times*, so that by eight o'clock, they have had all they require. They may now be turned into the yard until noon; when they should again be stabled, and fed sufficient to *fill themselves;* so also again at night. A full supply of pure water, is of course, necessary. *Regularity* as to the *time* of foddering, is important, and should be varied from as little as possible. It is better to feed n the stable—the labor is more easily performed, and then each one gets his share—the weak are not molested by the strong. The trouble of tying up is very little, and the amount of *manure* saved, is *very considerable.* I am particular to keep my cattle well bedded with straw, and this, with a little carding, keeps them perfectly clean. Every two or three days, a boy with a wheelbarrow and shovel, passes over the yard and gathers up all the droppings, and deposits them on the manure heap, thus saving all or nearly all of the manure.

In the fall, after my crops are all secured, I give my cattle the run of the farm, except a few acres around the house. They are fed with a little corn or millet in the morning, and again at night; by feeding them a little night and morning, they are not as hungry when turned out, and I think do not feed the meadows as close during the fall; consequently injure them less. I stable them nights the year round, and always milk in the stable—not one of my cows was ever milked out of doors—think it the best plan, as they are then all quiet, and in rainy weather all is snug and dry; they are carded every day, except in the busy part of the year; much might be said in favor of this practice.

And now, Messrs. Editors, in conclusion let me say, that from the little experience I have had in soiling cattle, I am decidedly in favor of the system—especially for milch cows—and should like to have said a few words in regard to some of its advantages; but as I have already occupied too much space in your valuable paper, will forbear. Light is needed upon this subject, and I hope those who have had experience in the matter, will "let their light shine," through the columns of the Country Gentleman.

Jefferson Co., N. Y. J. L. R.

Butter from Six Cows.

Messrs. Eds.—I would like to give you a statement of our butter-making the past year, (from Jan. 1st to Dec. 31st, 1859,) not that I have the vanity to believe that it cannot be beat, but chiefly as the result of soiling. My cows, six in number, are the native breed, medium size, and their ages as follows:—1 two, 1 three, 1 four, 2 six, and 1 ten years old; all raised by myself. They were dry from six weeks to two months previous to calving.

During the winter they were fed once a day on cut straw, wet, with two quarts of barley meal and shorts mixed with it. I also fed forty bushels of roots to the six cows and three yearlings during the winter. The balance of their food was good hay, and all they would eat. In the summer they were kept on green corn, sorghum, millet and grass, cut and fed to them in the stable. The oldest cow proved not to be with calf, and in the fall I fatted her—she was not milked after the 28th of Sept. On the 6th of Dec. a heifer, 20 months and 25 days old, dropped her calf, (too young by 4 months,) and I have estimated the two (the heifer and the cow fatted) as occupying ten months of the year—or say five cows for one year, and one cow for ten months, One quart of milk was daily kept by itself for ordinary family use; when more was wanted it was used.

Now for the butter. We have made thirteen hundred and seventy-two pounds and five ounces, or a fraction less than 235¼ pounds to the cow. The butter was disposed of weekly at 25 cents a pound, except that used in our own family.

Watertown, N. Y. J. L. R.

Wheat Crop of Orleans Co.—The annual report of this county Ag. Society, states the last wheat crop as an excellent one, and remarks—"one reason for the large yield was, the wheat was sown on the best soils, well prepared and tended, and sown earlier than heretofore."

THE CULTIVATOR.

ALBANY, N. Y., MARCH, 1860.

THE PENNSYLVANIA FARMERS' HIGH SCHOOL.—

We learn that the State Farm School is in a highly prosperous condition. It is now applying its one year's practical experience in combining labor and study, to the farther systematising the details. We understand that its means of illustration have been largely increased for next session by the extensive collections brought from Europe by the President of the institution, Dr. Pugh, and by his practical acquaintance with the systems of the European schools, as well as by other contributions and purchases, and by the general growth and vigor of the institution. We doubt not that all this will be received by the people of Pennsylvania with high satisfaction, under the assurance, from the train of progress apparent, that this nursery of intelligent farmers, on which our hopes of future agricultural position and success must largely depend, will realize the expectations of its originators, its best friends everywhere, as well as the community in general.—Germantown Telegraph.

We have been intending for several weeks to notice the catalogue of this Institution—lately received, and affording gratifying evidence of earnest efforts on the part of its Trustees toward the accomplishment of the hopes expressed above.

The pamphlet in question opens with some remarks—from the pen of the President of the School, we presume—in explanation of the system of instruction to be pursued, and arguing at considerable length the importance of greater intelligence in the pursuit of Agriculture, to the further development of that science, not less than to the practical interests of the agricultural community. Dr. PUGH, we infer, would answer the question, "why are so many of our young men leaving the farm?" partly, at least, by reasoning that as their interest is awakening in mental effort, and the ambition is arising among them for mental attainment, there has been no guide to point them into any real and practicable path to Agricultural Science—no institution to train them so that the transition from its preparatory studies to the duties of the farm at home, would be only a change like that of the engineer and surveyor from the study of mathematical principles to the practical duties of the field. In other words we take it that his aim is to secure a kind of education that shall lead the student to higher scientific and general acquirements, particularly in those branches associated with Farming, without giving him a distaste for the manual exertion which this pursuit necessitates—to provide him with a sort of knowledge capable of detecting quackery, and of testing the improvements that genuine Science may suggest—one that should quicken and govern his own experiments and investigations, and place within his better apprehension those that have been already made in the past, or are elsewhere in progress now.

Other subjects besides that of AGRICULTURAL EDUCATION are far more easily dealt with upon paper than they are in practice; but we shall look for something beyond mere generalities, of which all our agricultural literature possesses rather a superfluity, in the present instance. If foreign experience in treating the problem is worth anything to us here, Dr. Pugh has had the opportunity of studying it quite as thoroughly as any American we know, while his "antecedents" and personal tastes, so far as we are acquainted with them, are of such a kind as to render the opportunities he has enjoyed, of double value. We do not, therefore, wish to convict him as altogether guilty of our national sin of "spreading the American eagle"—when he writes, in conclusion, that "*all the civilized world* is watching the issue" of his present experiment; "the civilized world" is conducted on a pretty large scale now-a-days, and yet the farmers—with whose condition we claim that all civilization is most intimately connected—form, perhaps, a large enough part of it to justify the assertion, provided those of their number whose lot has been ordered by Providence within the boundaries of the "Key Stone State," encourage, as they should, the labors now going forward for their benefit. And those of New-York, whose anticipations are beginning to be aroused by the prospect of witnessing at an early day a similar institution of their own in active operation, will not be less pleased to see their Pennsylvania brethren setting them an example of cheerful support, and pointing them to the way in which their sons may reap the most good from a course of mental discipline "peculiarly adapted to the necessities and calling of the Farmer."

WHO SAYS FARMING IS NOT PROFITABLE?—From a statement in the Southern Cultivator, "by Prof. I. N. Loomis"—it is not stated whether he is a pseudo, or a real professor—it appears that there is a farmer in New-Jersey who went there twelve years ago, penniless—that he bought 19 acres of land, "as barren and unproductive as most of the worn-out old fields of Georgia"—that he has since increased his farm to 120 acres, erected a "splendid mansion, besides elegant and commodious out-houses, and improved and ornamented his place to the highest degree of beauty and refined taste," and that he "owns besides between $50,000 and $75,000 worth of other property,"—and all this has been realized from that small farm, of which even now "only 33 acres are under cultivation," the remainder being in meadow, pasture, lowland and wood." Who will hereafter dare to say that farming is not a profitable business!

A PRACTICAL COMPLIMENT.—We should hesitate about publishing the following extract, if the kind opinion of this paper which the writer expresses, had not been backed by a list of twenty subscribers for it—a practical evidence of sincerity and appreciation which we could scarcely ignore, however much we might be disposed to accept in silence the words of encouragement with which it is accompanied:—

MASSACHUSETTS.—Franklin County, Jan. 28.—"It is a pleasure to me to assist in the circulation of THE COUNTRY GENTLEMAN, and to know of its prosperity; it is certainly the first agricultural paper in this country. I think, let me say, that the letters of "L. H. T.," for a travelers' letters written currente curriculo, are very remarkable productions, and should by all means be preserved, as I presume they will be, in a volume form. Permit me to say if he does so, that correct cuts of animals, implements or buildings, very much enhance the interest, and as a friend of yours, and of the science and of books, let me insist upon a VERY full index—to make it valuable as a reference—such a style of index as you put to the Co. GENT. for example. J. S. G."

MAINE STATE AG. SOCIEEY.—The annual meeting of this Society, as we learn from the Maine Farmer, for the choice of officers, was held on the 25th ult., and the following persons were elected officers of the Society for the current year:—

President—W. C. HAMMATT of Howland.
Secretary—E. Holmes of Winthrop.
Treasurer—W. T. Johnson of Augusta.
Trustees—J. F. Anderson, Calvin Chamberlain, Seward Dill, T. M. Bradbury.

Thomas S. Lang, former President, was unanimously re-elected, but declined on account of pressure of other business.

NORTH-WESTERN AG. SOCIETY.—An incorporated association, under this title, has been organized at Chicago, with the following officers:

President—JOHN A. KENNICOTT.
Secretary—F. W. Reilly.
Treasurer—E. I. Tinkham.
Directors—Dr. John A. Kennicott, Hon. W. B. Fagan, Henry Fuller, W. R. Loomis, Wm. L. Church, Isaac Cook, E. I. Tinkham.

Its object is explained as follows:

The objects of this Society are the promotion, protection and encouragement of Agriculture and its kindred arts and sciences: the assertion of the importance of a fitting recognition of this great primary interest, so closely allied to the success not only of Chicago, but of our whole country; the erection of an Agricultural Bureau at Washington: the founding of an Agricultural College, Museum, Library and Reading Room in Chicago; the establishment of Annual Fairs and Exhibitions, and the improvement of a permanent Park, Pleasure and Fair Grounds.

Its capital is fixed at $60,000, of which $22,000 has already been subscribed, and they have purchased the "Garden City Race Course" grounds, containing 52¾ acres, for $28,000.

THE GREAT HAXTUN STEER.—The great bullock raised and fatted by Elnathan Haxtun, of Beekman, Duchess Co., was killed and dressed at Patterson's slaughter house on First Avenue, New-York, on the 19th of Jan., and after hanging just a week, his meat was weighed. His live weight when first taken to the city, as weighed upon the Washington Drove-Yard scales, was 3452 lbs. Three days afterwards, weighed upon the same scales, by the same man, with scales carefully balanced, he weighed 3418 pounds.

Afterward, upon two other scales, he weighed 3419 pounds. The dead weight is for fore quarters—1st, 700 pounds; 2d, 668 pounds—1368. The hind quarters—1st, 482; 2d, 469 pounds—951. Total 2319 pounds. The net weight is not quite 69 pounds per 100 upon his last live weight.

THE N. Y. STATE FAIR FOR 1860.—As our readers will learn from the Report of Proceedings at the Annual Meeting of the State Ag. Society, published in another column, ELMIRA was recommended as the place of holding the next Fair, and the Executive Committee, at their session on Friday, after adopting this recommendation—conditionally upon compliance with the usual requirements, of which the fullest assurances were given,—decided upon October 2, 3, 4 and 5 as the time of the Exhibition.

AN AGRICULTURAL BUREAU.—There have been a number of rumors in circulation in regard to new Agricultural arrangements under the Government at Washington, which we have not hitherto noticed—preferring to wait until the announcement should come in official shape. As we have been given to understand, Col. B. P. JOHNSON, of the State Agricultural Society, received an informal invitation to take in charge the Superintendence of a new Agricultural Bureau, to be separated from the Patent Office and placed under the immediate supervision of the Secretary of the Interior. Conceiving, however, that his present position afforded opportunities of agricultural usefulness, quite as great as the sphere that would be opened at Washington, he declined entertaining any more direct proposition; and at a social meeting of the U. S. Ag. Society, during their late session at that city, the Secretary of the Interior, after referring to these facts, mentioned that he should probably carry out the design of a separate Bureau as indicated, and place at its head, Hon. T. G. Clemson (of Virginia, we think.) The *Washington Constitution* of the 7th, states that Mr. C. the previous day, entered upon his preliminary duties "as the future Superintendent of the Agricultural Division, with instructions to report at once to the Commissioner, in order that he may be enabled to familiarize himself with the affairs involved in its operations, and receive the records and other effects pertaining thereto. The gentlemen employed in this branch of the service are also required to report to Mr. Clemson for duty, and to be directed by him, under the authority of the Commissioner of Patents, until such time as the proposed transfer shall be consummated, when the management will devolve exclusively upon the Superintendent, under the immediate direction of the Secretary of the Interior." We have no knowledge as to what may or may not be Mr. Clemson's qualifications for this position, but there appears to be a very general sentiment of hope that whatever a governmental desk can accomplish for the benefit of our agriculture, will at last be fairly tested before the country—a hope which we trust may be crowned with fruition under the new incumbent, although at the same time so fully impressed with the difficulties of the position, that we shall by no means look forward to any sudden and immediate millenium for our farmers.

KENTUCKY.—Extract of a letter from a subscriber in Mason County:—"I will try and send you some more names. A paper so good as the COUNTRY GENTLEMAN, should have a larger circulation in this, the very best agricultural region in America. "Big talk," say you—but it is so. I have seen all the best parts of America, Great Britain and France, and say no such natural soil exists elsewhere. Richer than any other in mineral and vegetable constituents, self-drained, quick and warm, it has no equal. Fifty years continual cropping in grain, *tires* our land; but all that the owner has to do is to put it down to grass from five to seven years—use it for grazing during the term, and his land is stronger, and *and grows heavier crops than the virgin soil ever did.* The true theory is, fifty years cropping robs the surface of the necessary mineral and vegetable ingredients. Seven years rest gives nature time to elaborate anew the exhausted minerals; the grass renews the vegetable matter, and the Kentucky landed proprietor has a perfectly renewed soil, capable of sustaining another long course of grain crops. This simple operation is his *guano* and his *compost heap.* He needs no other."

NEW BOOK FOR FARMERS.—C. M. Saxton, Barker & Co., Ag. Book Publishers, New-York, we are pleased to learn, have a new work in press from the pen of our correspondent, Mr. S. EDWARDS TODD, of Tompkins county. It is called "The Young Farmer's Manual," and coming as it does from the pen of a successful practical farmer—one "to the manor born"—we cannot doubt but that it will prove a valuable addition to every farmer's library.

☞ It gives us much pleasure to announce that EDWARD G. FAILE, Esq., of New-York, who has been one of the most active and efficient Vice Presidents of the State Agricultural Society for several years past, was last week chosen a member of the Board of Trustees of the State Agricultural College at Ovid.

SOAKING SEEDS BEFORE SOWING.—This practice is not as extensively adopted in this country as it might be with advantage both for the farm and the garden. In this respect we are far behind a people whom we are apt to regard with feelings nearly approaching to contempt. There are few, probably, either in England or this country, who are are not disposed to think themselves much superior to the Chinese, and yet, in one respect at least, we think they are much in advance of most farmers in either England or America. LIEBIG states, in his "Letters on Modern Agriculture," that no Chinese farmer sows a seed before it has been soaked in liquid manure diluted with water, and has begun to germinate; and that experience has taught him that this operation tends not only to promote the more rapid and vigorous growth and development of the plant, but also to protect the seed from the ravages of worms and insects.

There would be not only some trouble but some inconveniences also in the adoption of this practice on an extensive scale; but we are pretty confident, notwithstanding, that those who commence it on a small scale, will find it productive of advantage enough to induce them to extend their operations. We may suggest that we have, on more than one occasion, been informed by one of our correspondents that he makes much use of hen manure in water as a soak for his seeds.

VERMONT STATE AG. SOCIETY.—At a meeting of the Executive Board at Brattleboro, on the 1st inst., it was decided to hold the next annual Fair of the Vt. State Ag. Society at Burlington, commencing 2d Tuesday of Sept. and continuing four days.

☞ The next session of the American Pomological Society, as we learn by a letter from the President, Hon. M. P. WILDER, is to be held at Philadelphia, commencing Sept. 10.

A LITTER OF PIGS.—Mr. HIRAM OLMSTED of Delaware county, hands us the following figures. A litter of nine pigs was farrowed May 14, 1858, the property of E. WAKEMAN, and were sold to the following neighbors of his and killed at the following dates—showing an average weight of 456 lbs. each at the average age of between 17 and 18 months.

Date.	Owner when killed.		Nett weight.
Nov. 20, 1859,	S. M. Bartlett, 2 pigs weighing	.....	780 lbs.
Dec. 10, do.	N. Nichols, 1 pig	do.	410 do.
15, do.	A. Nichols, 1 pig	do.	422 do.
Nov. 15, do.	D. Beers, 2 pigs	do.	800 do.
Dec. 20, do.	E. Wakeman, 1 pig	do.	552 do.
Oct. 20, do.	N. Wakeman, 1 pig	do.	405 do.
Feb. 1, 1860,	do. do.	do.	742 do.
	Total nett weight of the litter,	.....	4,111 do.

These pigs were full blood "natives"—the *live weight* of the last and heaviest being plump 900 lbs.

ST. LAWRENCE CO. AG. SOCIETY.—At the annual meeting, Jan. 10, the following officers were elected:

President—Hon. CALVIN T. HULBURD, Brasher.
Vice Presidents—Joseph Whitney, Madrid; George A. Sheldon, Hermon; Reuben Nott, Oswegatchie; Joseph E. Orvis, Massena; Charles N. Conkey, Canton; Alexander J. Dike, Depeyster; Nelson Doolittle, Russell; Joseph E. Durphey, Hopkinton.
Secretary—L. E. B. Winslow, Canton.
Treasurer—George C. Bogue, Canton.

The report of the Treasurer, stating the receipts of the year past to have been $2,604.51, and the disbursements to have been $2,576.75, was read and adopted. A resolution was adopted that the premiums of the Society should

be "open for competition to the world." It was determined that the future Fairs of the Society should open on the last Wednesday of September.

Mr. Wainwright's Next Devon Sale.—From our Advertising columns it will be seen that a portion of the excellent Devon herd at "The Meadows" is to be offered at public sale the coming season. It had been Mr. W.'s intention to make these sales *biennial;* but not having a sufficient number of animals to offer publicly last year, he disposed of such as he could best spare at private sale. We need scarcely say that the superior quality of anything offered by Mr. W. is entirely to be depended upon. The bulls with one exception, will all be under two years old. Nor is it necessary to add that it will be a *bona fide* sale: it may be remembered that Mr. W.'s last sale was carried out in exact accordance with the stipulations in the catalogue, although at a heavy loss to himself.

Apple Crop of Niagara Co.—About two hundred thousand barrels of apples have been sent from Niagara Co. to points east, north, and west, the past season. Putting the average price at $1.50, would make the value of the exports $300,000. Large quantities were also marketed for domestic use, and a still larger amount dried for marketing, so that we may safely estimate the value of the crop of 1859 at $500,000. A large share of these apples were the largest and fairest ever grown in the county.

Manuring and Draining.—I have read the Junior's Letters from Europe with a great deal of interest and profit, and must tell him that he appears to have worked hard and plowed deep. But has he discovered the *self-sustaining system of farming for America?* Liebig would have us believe that this consists in returning the mineral ingredients only, whilst John Johnston preaches and practices the return chiefly of the organic ingredients. One thing I am certain of, Liebig and Johnston may manure all they can, but a thoroughly drained subsoil must underlie the soil that yields a *full profitable* return in the shape of grain crops of all kinds. This Johnston preaches and practices, and in this he is far ahead of any one in this country, and fully equal to his compeers in Europe.

The amount of ignorance in this country, as to true farming, is extraordinary. This may be accounted for by the fact that the early settlers found the soil fertile and generous, and they practiced a system of constant and successive cropping, without stopping to think of the result. Their children followed the example set before them until they found that crops failed, and then they began to look around for a cause. Barley has ceased to be grown in this county, because the land won't grow it, but many farmers do not know the cause (or won't.) They ascribe its failure to unpropitious seasons, insects, defect in seed, &c., &c. One of my neighbors sowed one field to oats seventeen years in succession! And when he wanted to sell the land, he cited this fact to prove the richness of the soil! But there is beginning a change here, and this I ascribe to the good effects produced by the agricultural press. You are not laboring in vain—depend upon it. J. R. C.

Shares' Harrow—Sinclair's Straw Cutter.—If you are not overrun with recommendations of Shares' Harrow, I would like to give it a most hearty approval, but to dissent from the suggestions of some of your correspondents that it should be made heavier. My soil is a light loam, and my teams are large, strong, and well fed, but the harrow gives them enough to do as it is. Another implement I bought this year, that was advertised in your columns, has given great satisfaction—Sinclair's Straw Cutter and Cornstalk Masticator. It is a very well made, strong and effective machine—and the only one I have ever seen that did work enough to make it pay. Two horses can go on the horse-power and cut all the hay in one hour, that they will eat in a week. The only trouble is to find a man smart enough to feed it. T. L. Harison. *St. Lawrence Co.*

Remedy for Vermin on Cattle.—C. H. M. asks for something to kill lice on cattle. Rubbing them over with hog's lard will do it, but unguentum I think cheaper—a little put on the neck and shoulders, and a little on the rump, will generally kill them all in a day or two. If it don't, apply a little more. If C. H. M. will look around, he will find some cause for his well fed calves having lice on them. Not having air enough in their stables will make them lousy, no matter how much good feed he gives them. Dirty beds will also do it. Standing in muddy yards will also do it, especially in wet clay; it creates a fever in the feet and legs; the hair all over them is rough, and in the end they fail in condition and become lousy. I had one cattle yard to tile-drain, to prevent the cattle treading up the clay when the weather was soft in November. When they trod up the clay, their legs became swollen, their feet sore, their coats staring, and lice followed. I had to put them in a dry place, foment their legs with warm water, rub the legs and feet dry, and then rub on a salve of sugar of lead and lard, and a few days got them well; but some 15 years ago I made the yard perfectly dry, and never had a case of the kind since.

Look and think, Mr. C. H. M., and you will find a local cause for lousy well fed animals—a sharp eye and *thinking*, is very important for the stock master—I think more so than any other branch of farming. John Johntson.
Near Geneva, 27th Jan., 1860.

P. S.—I wish some of those gentlemen who think sheep must have ticks on them, would come and examine mine.

Comstock's Terraculture.—

It is frequently said in some of the agricultural periodicals that a report was made some years since by a committee of the New-York State Agricultural Society, unfavorable to the alleged discovery of Mr. Russell Comstock. This is entirely founded on misconception—an innocent misconception, without doubt, but one which ought to be corrected.—[N. Y. Eve. Post.

In reply to the above, we copy the following paragraph from the Transactions of the N. Y. S. Ag. Society, vol. 10, p. 133:—

Mr. Allen or Erie, in the absence of the chairman of the committee, to whom was referred the claimed discoveries of Russell Comstock of Dutchess Co., on vegetation, reported, after a conference with Mr. Comstock, that the committee came to the unanimous opinion that no *new discovery* had been made by Mr. Comstock, nor was his practice *different from that of experienced nurserymen heretofore*, and which may be found described in public works—and although important in themselves, the committee do not deem it proper for the Society to recommend to the Legislature any appropriation to Mr. Comstock as the discoverer. The report was accepted and adopted

New-Hampshire State Ag. Society.—At the recent annual meeting of this Society, the following officers were elected:

President—Wm. F. Estes of Dover.
Secretary—Aaron Young of Dover.
Treasurer—Frederick Smith of Manchester.
Board of Directors—Dana Woodman of New-Hampton; Joseph B. Walker of Concord; Alfred Holt of Durham; John Preston of New-Ipswich, and John S. Walker of Claremont.

Large Hogs.—Thomas Hood, living about four miles east of Crosswicks, killed Feb. 5th, 34 hogs—average weight 560 lbs. The largest weighed 720 lbs. Isaac Harrison killed 21—averaged 514 lbs. The largest weighing 657 lbs. William Taylor killed 37—averaged 475—largest weighing 578 lbs. They were fatted principally upon ground corn scalded. G. R. Duer.
Burlington Co., N. J.

Large Sheep.—I send you the weight of a lot of sheep bred and fed by me. There were 30, viz., 12 ewes that I selected from my flock that I did not care to breed from, and 18 two-year old wethers. They had not been extra fed; they had a little oats and corn once a day part of last winter, and until grass. I gave them no grain afterwards until the grass began to fail, which was about the middle of November. I then gave them grain again until they went to market, which was the 19th Dec., 1859. I weighed a few of them at home. The heaviest weather weighed 257 pounds—the heaviest ewe 245 pounds. They were driven to the village, and the average weight of the whole of them there was 206 pounds. They were a cross of the Leicester and Cotswold. Hugh Exton.
Union Farm, N. J.

Straw as Manure.—Wheat straw, estimated by the value of its constituents, is worth for the purpose of feeding, from 30s. to 35s. ($6 to $7) per ton. We would therefore prefer chopping it up, enriching it with a little mucilage of linseed cake, and feeding our cattle with it to using it for bedding horses or cattle.

HIGHLAND NURSERIES, Newburgh, N. Y.

A. SAUL, (successor to the late A. J. Downing & Co.,) has the pleasure of announcing to the patrons of this old establishment, and the public in general, that his stock of

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for sale for the ensuing spring trade, is full and complete, and comprises everything to be obtained in his line of business, viz:

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Mar 1—m2t | Mar 15-weow4t Newburgh, N. Y.

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Mar 1—w4tm1t Albany, N. Y.

Extract from the Catalogue of Messrs. E. G. Henderson & Son, the Queen's Nurserymen, London, 1859.

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Thus in all parts of the world is this fruit becoming favorably known and a volume of testimonials could be given equally favorable. The original variety may be had of the undersigned, in small and large packages. Feb. 23—w&m1t. WM. LAWTON, New Rochelle, N. Y.

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NOTICE.—The Copartnership heretofore existing under the firm of A. SAUL & CO., having expired by its own limitation, the undersigned will continue the business on his own account from this date. A. SAUL.
Highland Nurseries, Newburgh, April 1st, 1859. Mar 1—w&m1t

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Feb. 16—w2t West Cornwall, Conn.

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